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South America Rediscovered

South America REDISCOVERED

by TOM B. JONES

The University of Minnesota Press, Minneapolis

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Preface

THIS book was not undertaken in a spirit of grim determination to produce a monumental piece of scholarship. Most of the research and writing was done under the most favorable conditions and in a wonderfully pleasant environment. I thoroughly enjoyed it.

A fellowship from the Rockefeller Foundation gave me abundant leisure to read and write. I had the cheerful cooperation of staff members of the Buffalo Public, Grosvenor, and the University of Minnesota libraries, and I regard it as my good fortune that Mrs. Harding and her efficient staff at the University of Minnesota Press could be persuaded to undertake the publication of this book.

Permission to quote from certain authors was graciously extended by: Constable and Company, Ltd. (London), F. J. Stevenson, *A Traveller of the Sixties*; E. P. Dutton & Co., the Everyman's Library editions of Charles Darwin, *Voyage of the Beagle*, and W. H. Bates, *Naturalist on the Amazons*; the Peabody Museum of Salem, J. C. Phillips, *South American Journal (1858-59) of G. A. Peabody*; Chicago Natural History Museum, B. E. Dahlgren's translation of *Travels of Ruiz, Pavón, and Dombey in Peru and Chile (1777-1788)*.

Finally, I am enormously indebted to my family for their intelligent and enthusiastic interest in my work.

TOM B. JONES

University of Minnesota

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South America Rediscovered

Introduction

"One of the necessary preparations for visiting foreign countries, particularly those which are distant, is to procure as much information as possible concerning them. All the books that can afford it, are ransacked and read; and the traveller, when he arrives, often finds himself enabled to impart some of his knowledge to the inhabitants."
—*Peter Schmidtmeier, 1824*¹

BEFORE the revolt of the Iberian colonists in the New World raised the iron curtain which had concealed the American holdings of Spain and Portugal for three long centuries, Africa was not the only Dark Continent: South America was no less obscure to Europeans living north of the Pyrenees. Although a succession of British, French, and Dutch navigators had described the South American coastline, their exclusively maritime view of the continent left vast reaches of the interior as blank as the mind of Ferdinand VII.

During the eighteenth century the popular desire for information about South America became more intense with each passing year. In England, for example, the reading public merely whetted its appetite with Anson, Byron, and Vancouver, and then howled for the main course. The publishers in London found it profitable to bring out English translations of foreign accounts as fast as they could obtain them; first Frezier,² and then Juan and Ulloa³ proved great favorites. At the beginning of the nineteenth century, the wide circulation of Humboldt's *Travels* provided convincing evidence for the international character of the interest in South America. English translations of the work appeared almost simultaneously with the French original, while in Philadel-

phia the astute Marcus Carey published Maria Williams' translation as early as 1815.⁴

Small wonder, then, that the literate travelers who penetrated Brazil, the Platine provinces, and the countries of the west coast when the wars for independence first opened these areas to non-Iberians found a ready market for their manuscripts when they returned home. Between 1815 and 1830 the production of travel books on southern South America attained a volume which was not equaled again until after 1850. Good, bad, or indifferent, these accounts sold, some of them extremely well. One of the outstanding successes was achieved by Head's famous journal of which an envious competitor remarked: "Happy shall I be if all the *world* gallop to my booksellers and gallop off with these volumes with the same speed, and with one-half the pleasure, with which they galloped off with the 'Rough Notes of Rapid Journeys across the Pampas,' a work which like its author, flew like wildfire."⁵

If we follow the story of South American travel books after 1830, we discover a decline in their numbers during the next fifteen years with a sharp rise beginning again as we approach 1850. Thus, it is clear that the travel literature of the nineteenth century reflects the waves of popular interest in South America which swept across Europe and the United States at intervals during this period. That interest in the southern continent should have its ups and downs is readily understandable when one considers developments in Latin America and in the western world as a whole in the years from 1810 to 1870.

During the Age of Revolution the drama of a continent in quest of political freedom naturally aroused the sympathy and interest of many Europeans and North Americans, but few people were oblivious of the potential profits to be derived from the opening of a large market to the traders of all nations; then, too, the fabled mines of Spanish America and Brazil were thought to afford unlimited opportunities for investment and exploitation. Therefore, every new report on

the South American situation was heartily welcomed for whatever it might add to the general fund of information (or misinformation) about military affairs, politics, trade prospects, natural resources, investment possibilities, and opportunities for European colonization. The excessive optimism regarding South America's economic potentialities was shared by natives and foreigners alike, for, while there were many cases of deliberate misrepresentation of the facts, there were even more examples of overestimation engendered by wishful thinking and inadequate data. This rosy picture of South American prospects, typical of the first quarter of the nineteenth century, began to fade after 1825 as the mining companies (hastily organized in London) failed and as the new Latin American states defaulted on their loans or were unable to set up stable governments which could protect the investments, property, or even the lives of foreign citizens. Civil war in the Argentine and Chile, the struggle over Uruguay, and the imminent revolution against Pedro I in Brazil all contributed to a great disillusionment. Traders and investors began to seek less risky ventures for themselves in the United States and the Orient, while the average man came to regard South America as a region of chronic chaos.

After two decades of comparative apathy, interest in South America commenced to revive about 1850 and rose steadily in the years that followed. There were, one might say, internal and external reasons for this new development. In Brazil the able Pedro II had organized a settled and progressive government; in the Argentine the expulsion of Rosas and the establishment of the Confederation promised national unification; Chile had been remarkably peaceful since 1831; and Peru was just beginning to realize huge profits from the sale of guano. Changes in the aspect of the outside world were important, too. The steamship was now able to bring Europe closer to the New World. Increasing industrialization in Europe promoted a growing competition for new markets. In the factories of France and Britain the machines were

hungry for raw materials, and the workers needed cheap food. Furthermore, a place must be found for the unwanted people of the Old World, the unemployables and the oppressed. There was capital to be invested in agricultural or grazing enterprises, in mines, in the exploitation of other natural resources, and in transportation. Railroad building had reached a point where it was becoming an end in itself—every country ought to have a railroad whether it needed one or not!

Once more South America had the spotlight, and again the publication of travel books increased. The peak that had been attained from 1815 to 1830, when the number of books was about double that of the succeeding fifteen years, was reached again and even surpassed in the two decades following 1850. Undoubtedly, the books of the third quarter of the nineteenth century were more widely read than those of the twenties. With a few exceptions they were not more accurate or informative, nor was their literary quality superior to the earlier books—their physical makeup was definitely inferior, but they were cheaper in price and issued in larger quantities. In addition, the size of the reading public had greatly increased since 1825.

We know that our predecessors valued the Latin American travel accounts highly; there is abundant evidence of this in the contemporary reviews and notices. It was from these accounts that our grandfathers and great-grandfathers formulated their opinions of Latin America, whether for better or for worse. If we wish to see Latin America as they saw it, we must read their books. This is not, however, their whole value for the modern historian, for these old accounts contain much in the way of social and economic history that is not at present available from any other source. For the period from the revolution to the 1870's, an age in which Latin American governments rarely issued official reports and statistics, the travel accounts are especially important. The utility of such observations by foreigners may decrease when the Latin

American historians abandon their predilection for political and military history and begin to branch out into other phases of historical research. Then they will bring to light local records of the type employed so successfully by the historians of the United States and Europe. Then we will have the other side of the story, and the new sources should complement, if not replace, those now available. In the meantime, we must make the best of what we have.

Travel accounts, personal memoirs, consular reports, and similar documents emanating from foreigners in a strange land have definite limitations. The superficial observations of a bird of passage are often misleading and sometimes worthless, and there are other people so constituted that they may live for decades in a foreign country without learning much about it. Nevertheless, the collection, evaluation, and integration of a mass of observations made by foreigners should result in a faithful, though incomplete, picture of a given area. The attitude of the stranger in Latin America was usually a critical one—and this must never be forgotten—yet the outsider is likely to mention and describe many things that the native takes for granted and therefore rarely discusses.

If, in dealing with foreign opinions of Latin America, one keeps in mind the necessity for the constant exercise of balanced judgment—allowing for the generally critical tone of the foreigner and his tendency toward overstatement—these sources can be useful. A good example of an essentially true, but slightly exaggerated, observation may be seen in the following quotation from a Scotchman of the early nineteenth century who spent many years in southern South America:

“Of natural or unschooled talent there is a great deal there. A vivacious imagination is almost universal in the inhabitants; and in the fine language which they possess, they express themselves with a fluency, if not an eloquence, at which we seldom aim, and to which we seldomer attain. This facility has grown out of their tertulia, or conversazione habits. Among the lawyers, the constant practice of dictating to an

amanuensis, the definitions, reasonings, and refutations in the various cases in which they are retained, enables them often to write, and to write with fluency and elegance, upon subjects, the theory and bearing of which they study for the occasion. Of course, all such writings are more plausible than profound, more replete with declamation than sound reasoning. The imagination of the South American is constantly at work; and unconsciously, perhaps, he is ever showing forth, among his countrymen, things as they ought to be, not as they are. When we hear him descant, in glowing and eloquent terms, on 'civil liberty,' 'freedom of the press,' 'liberal education,' 'privileges of the constitution,' we fancy there must be a tolerably good foundation laid of all these blessings, before so much could be said about them.

"Yet the ideas which are raised in *our* minds by the enumeration of such social benefits, are certainly different from those which arise in the mind of a South American. As yet the whole to him is little better than a theory, while it forms with us a series of practical principles, which we have been cultivating and perfecting during a course of consecutive ages."⁶

In conclusion, it remains to set forth the purpose of the present work and to explain its organization.

The objectives of this book are twofold: first, to reconstruct southern South America as foreigners saw it in the years from 1810 to 1870; and second, to enumerate and to discuss briefly the sources that may be employed for such a task.

Certain limitations in scope and content have been necessary. Most of the sources I have used are those that were available to the reading public of Great Britain and the United States in the nineteenth century. This was unavoidable because travel accounts in French, German, and other foreign languages are not easily accessible in this country. Considerations of unity dictated my choice of southern South America as an area for study; it would have been impractical

to include Latin America as a whole or even to embrace in a single account all of South America. The problem was simplified by the discovery that most travelers went either to Venezuela, Colombia, and Ecuador, or else to one or more of the countries to the south. In the twenties, especially, a man who went out to Brazil or the Rio de la Plata was very likely to find his way eventually to Chile and Peru.

It is to be hoped that the general reader will welcome (and the scholar will pardon) the levity which has crept into these pages. There is humor in the travelers' tales, and it would have been a shame to omit it.

CHAPTER I

The Outward Voyage

"The moment of leaving Europe for the first time is attended with a solemn feeling."

—*Alexander von Humboldt*¹

IN 1800 a voyage from Europe to South America was usually performed under conditions which had improved only slightly since 1492. Although sailing vessels had increased in size and the instruments for navigation were more accurate, the voyager of the Napoleonic era engaged in his first Atlantic crossing often felt a close kinship with Columbus. To appreciate what the introduction of the steamship meant to ocean travel, one has but to compare Baron von Humboldt's uncomfortable passage in 1799 with the speed and security attendant upon trans-Atlantic crossings three quarters of a century later. It took George Fracker (1817) eighty-two storm-tossed days to sail from New York to Montevideo—and then his voyage ended in shipwreck. Fifty-five days were required for the Peabody party from Boston (1859) to reach the same destination in a vessel that employed both sails and steam.² By 1865, however, Mrs. Agassiz was able to sail from the United States to Rio in a matter of days instead of weeks; the new steamer on which she took passage was clean, comfortable, and even luxurious. In short, travel to South America had become a brief and pleasant experience; it was no longer an extended nightmare.

The route followed by European vessels bound for southern South America was a natural one which varied little

through the centuries: first to Madeira; next the Canaries; then the Cape Verde Islands; and finally a point on the Brazilian coast, Pernambuco or Cape Frio. Lord Anson's squadron (1740) crossed from Madeira to Brazil in six weeks, while the *Beagle* (1831) spent only about half that time at sea. Maximilian, the future emperor of Mexico, reported (1859) that the sail and steam of the *Elizabeth* carried his party across the Atlantic to Brazil in thirteen days.³ The normal sailing time for steamers on the Madeira-Montevideo run in the seventies was seventeen days, and this included stops in Brazil.⁴

Embarkation for South America in the early part of the nineteenth century was a matter involving considerable planning and preparation. Take, for example, the question of provisions. There must be enough water for a voyage of uncertain length, and people could not subsist indefinitely on hardtack. It was customary to carry along crates of fowls as well as several live cattle. There was always the possibility that the diet on shipboard might be supplemented by fish caught en route, but one could not depend on it.

The voyage begun, the thing to be feared next after famine was the outbreak of some contagious disease which might carry off the better part of the ship's company. Few vessels were so fortunate as to have a physician aboard even as a passenger. Brand advised every traveler to carry his own medicine chest containing calomel, epsom salts, seidlitz powders, adhesive plasters, and lancets.⁵ Bleeding and purging were, of course, the sovereign remedies of the age.⁶ *Mal de mer* was treated in various ways: Andrews recommended securing by a string a piece of salt pork soaked in treacle, a dainty morsel to be alternately swallowed and disgorged by the patient.⁷

With regard to illness at sea, the account of Humboldt is typical: "The last days of our passage were not so happy. . . . The dangers of the sea did not disturb our enjoyments, but the germ of a malignant fever discovered itself as we drew

near the Antilles. Between decks the ship was excessively hot, and very much encumbered. From the time we passed the tropic, the thermometer was at thirty-four or thirty-six degrees. Two sailors, several passengers, and, what is remarkable enough, two negroes from the coast of Guinea, and a mulatto child, were attacked with a disorder which appeared epidemic. The symptoms were not equally alarming in them all; nevertheless, several persons, and especially the most robust, fell into a delirium after the second day, and felt a total prostration of their strength. The indifference which prevails on board packet boats, for every thing that does not regard the working of the ship, and the quickness of the passage, prevented the captain from employing the ordinary means of diminishing the danger which threatened us. No fumigation was made. A Gallican surgeon, ignorant and phlegmatic, ordered bleedings, because he attributed the fever to what he called heat and corruption of the blood. There was not an ounce of bark [quinine] on board.”⁸

Still another hazard, infrequently encountered but extremely serious in consequence, was fire. When A. R. Wallace was returning from Brazil in 1852, he was quietly reading in his cabin one morning when the captain of the vessel appeared at the door, and said, “I’m afraid the ship’s on fire; come and see what you think of it.”⁹

The captain was not mistaken. A fire in the hold had eaten its way aft below deck and was soon completely out of control. There was no choice but to abandon ship. “The long-boat was stowed on deck, and of course required some time to get it afloat. The gig was hung on davits on the quarter, and was easily let down. All were now in great activity. Many little necessities had to be hunted up from their hiding-places. The cook was sent for corks to plug the holes in the bottoms of the boats. Now no one knew where a rudder had been put away; now the thowl-pins were missing. The oars had to be searched for, and the spars to serve as masts . . .”¹⁰

Wallace managed to save a couple of notebooks and some

clothes at the expense of blistered hands. Other personal belongings, including a large portfolio of drawings and sketches, had to be left behind.

The boats, which were well dried in the tropical sun, proved leaky. In a few minutes they were half full of water, and two men in each boat were assigned to the task of bailing with buckets and mugs. In spite of these difficulties Wallace and his companions managed to stay afloat, and their story had a happy ending. After ten days of drifting, they were picked up two hundred miles off Bermuda by a vessel bound for London.

Although the voyager to South America was likely to be exposed to perils such as these and to many others, there were, of course, innumerable crossings unmarred by incidents of this sort. On the other hand, the travelers' accounts reveal a community of experience. Every vessel seemed to carry some passenger of unusual or peculiar character, and most voyagers remembered vividly their first view of the peak of Teneriffe in the Canaries, the ceremonies of crossing the equator, the initial glimpse of the Southern Cross, and the appearance of flying fish. Perhaps the greatest thrill was the first sight of the New World.

Gerst ker, bound for California in 1849, found his fellow passengers from Bremen a queer lot.¹¹ All were gold-seekers, and there was neither woman nor child aboard. Standard equipment seemed to be spades and weapons: "lots of old sabres, pistols, daggers, guns, and other arms, make their appearance, as if an arsenal had been plundered, or as if an armoury of military antiquities were to be furnished."

Gerst ker continues his description as follows:

"One character I must not pass over in silence, who, not only among us, but in the whole of Bremen, has created considerable sensation. He is a cutler from Magdeburg, called on board only 'the giant'; and he is likewise going to emigrate to California. Let the reader imagine to himself an Herculean figure of colossal frame, with a curled beard, ruddy cheeks,

and bright good-tempered looking eyes, only a little too portly; a man, therefore, who would have been conspicuous by his size alone, but who attracted still greater notice by his dress and accoutrements: a green blouse, light trousers, and a gray wide-awake; round the body, a white leathern belt five inches broad, from which were dangling a huge broadsword dragging noisily on the pavement, and besides it, a cutlass; and, moreover, a clasp-knife about eighteen inches long; and as if this were not enough, there were sticking in it pistols and a dagger, the handle of which served as a pocket pistol. The wild and ludicrous effect of his appearance was still further heightened by the companions of our hero. These were three diminutive individuals, here called 'the satellites,' who sport round their huge leader as the pilot-fish does round the shark. These three little fellows likewise wear green blouses, wide-awakes, and white belts; they look exactly like young giants, only, that instead of the broadsword, very short knives or cutlasses adorned their sides. I have not seen anything half so odd for many years."¹²

F. J. Stevenson (1867) found his shipmates less amusing: "[They were] Americans from the Southern States, emigrating to South America, as they had found life intolerable in their own country under the 'tyranny' of the hated 'Goddam Yankee Mudsills.'

"There was not one passably well-educated, or even decently cleanly and well-behaved man in the whole crowd, and I was sick and tired of being told that they considered themselves 'Nature's Noblemen,' 'Models of Chivalry,' and much more bosh of that sort. Their womenfolk were not much better, and most of them had not even the advantage of good looks to make them passable.

". . . it was highly amusing to leave them and go to the steerage saloon where there were some rabid Northerners against whom I had to defend the Old Country [England] from the accusation of helping the 'Goddam butternut-

coloured sons of she-dogs,' as they so elegantly style their late Confederate fellow citizens."¹³

With the voyage well begun, the traveler from Europe or North America found his attention drawn from his novel companions to the wonders of the sea and the sky. This interest was intensified as one approached the southern hemisphere. One of the first thrills was the appearance of the flying fish. "From the twenty-second degree of latitude, we found the surface of the sea covered with flying fish, which threw themselves up into the air twelve, fifteen, or eighteen feet, and fell down on the deck. I do not hesitate to speak of an object, of which voyagers discourse as frequently as of dolphins, sharks, seasickness, and the phosphorescence of the ocean."¹⁴

Next came the Southern Cross. As Humboldt says, "From the time we entered the torrid zone, we were never wearied with admiring, every night, the beauty of the southern sky, which, as we advanced towards the south, opened new constellations to our view. We feel an indescribable sensation, when, on approaching the equator, and particularly on passing from one hemisphere to the other, we see those stars, which we have contemplated from our infancy, progressively sink, and finally disappear. Nothing awakens in the traveller a livelier remembrance of the immense distance by which he is separated from his country, than the aspect of an unknown firmament . . .

"The lower regions of the air were loaded with vapors for some days. We saw distinctly for the first time the Cross of the south only in the night of the 4th and 5th of July, in the sixteenth degree of latitude; it was strongly inclined, and appeared from time to time between the clouds, the centre of which, furrowed by uncondensed lightnings, reflected a silver light. If a traveller may be permitted to speak of his personal emotions, I shall add, that in this night I saw one of the reveries of my earliest youth accomplished.

" . . . The pleasure we felt on discovering the southern Cross was warmly shared by such of the crew as had lived in the colonies. In the solitude of the seas, we hail a star as a friend, from whom we have long been separated . . . The cross of the South is . . . a time-piece that advances very regularly . . . and no other group of stars exhibits, to the naked eye, an observation of time so easily made. How often have we heard our guides exclaim in the savannas of Venezuela, or in the desert extending from Lima to Trujillo, 'Midnight is past, the Cross begins to bend!' " ¹⁵

Where Humboldt was thrilled by the Southern Cross, the ill-fated Maximilian found the constellation disappointing. Perhaps it was an omen, for Humboldt was to find in the New World the materials upon which he built his international reputation as a scientist; Maximilian, in the end, faced a firing squad. It is pathetic to read in Maximilian's journal:

"The Great Bear, which I have gazed at so long as I can remember anything . . . had now disappeared, and the polar star stood low down in the horizon, almost dethroned. The small crescent moon shone with vivid light, and cast shadows deep as that of our full moon. The scene afforded me inexpressible delight, and elevated my mind; I had arrived at a new point in the history of my life. These innocent triumphs are more in harmony with my struggles and aspirations than all the splendour that my native country can offer.

"I was the first of my house who ever wandered to the tropics, and even now did so with the feeling that I had not yet arrived at my ultimate destination." ¹⁶

Then follows the entry for the succeeding day: "The earliest hours of morning found me already on deck, that I might see the much lauded, oft-described Southern Cross: the starry image was there, just over the horizon, the five brilliant specks distorted into a cross as crooked as those that at dinner one makes in play of crumbs of bread.

"Although the lowest star is said to be the brightest, yet we could not perceive that it was especially bright or spar-

klings. No enthusiasm was awakened in my heart at the sight of this constellation, and I am unable to sympathize in the delight of the many travellers who describe this wonder in rapturous terms."¹⁷

It was customary to cross the equator with "much mumming and monkey tricks."¹⁸ The ship was boarded by the sea-god Neptune, who gave special attention to passengers and crew members who were "crossing the line" for the first time. The neophytes were placed over a tub of salt water, lathered with tallow and tar, and shaved with a cutlass.¹⁹ "With Englishmen such a day is always dangerous, and seldom closes without some rough and unpleasant scene."²⁰ This was certainly true, and as the century wore on, such ceremonies were forbidden on the warships of the United States and curtailed on British vessels. By 1850 the passengers could escape Neptune's ministrations by contributing a little money for the crew's grog, although the passengers themselves might play harmless pranks on one another: when Mansfield crossed the equator in 1852, he and his friends stretched a hair over the glass of a telescope so that a gullible Frenchman might actually "see the line."²¹

It is interesting to note what Terry says of a similar custom in the Pacific: "The Peruvian custom differs from the English and North American; and although not as disgusting, is very dangerous. No father Neptune comes in state to superintend the rite. A whip is rigged on the lee fore-yard-arm, to one end of which a kind of cradle, made of rope, is attached. In this the victim is made to sit, and hold on to the rope above his head. He is then drawn up to the yard-arm, and let go by the run into the sea. After towing a few seconds, he is drawn up again, and the operation is repeated until the poor wretch is half drowned."²²

With the equator astern passengers looked forward with mounting eagerness and excitement to the great event: their first glimpse of South America. What they found there we shall ourselves discover presently, but for the moment let us

see them as they crowd to the rail in that initial instant of glowing anticipation, echoing in their minds the thought of Maximilian:

“Land! land! resounded like a song of triumph from the freely, deeply drawn breathings of my heart, when, with early morning, I came on deck, and beheld the sunlit, wave-washed shore of the new continent, of that quarter of the globe discovered by the power of science, extended in the distance before me. It is nearly four hundred years since the same rapturous cry . . . burst for the first time from the mast of a small, fragile vessel . . . It seems now like a fable that Europe should already have made such advances in the arts and sciences, that the invention of printing should have already diffused light, that the first thunder of guns should have resounded, that so many of the greatest men should have passed away, whilst one-half of the globe still remained undiscovered.”²³

CHAPTER II

Buenos Ayres

"The Town of Buenos Ayres
Built all in the Mire is."

—*A local poet of Hibernian extraction*¹

THE future "Paris of the New World" offered but poor compensation to the weary voyager after his long sea journey. Access to the city was difficult, and the unpretentious appearance of the Buenos Ayres waterfront caused many a traveler to doubt that, once ashore, he would feel even partially repaid for the inconvenience attendant upon his landing.

There was no "port" of Buenos Ayres; it was barely a roadstead. Seagoing vessels of light draft could come within four or five miles of the city without scraping on the shallow floor of the Plate, but from this point passengers and freight must be loaded into whaleboats or lighters and carried over the bar to the inner roads. Assuming that conditions were favorable, that there were not the high winds or dense fogs which frequently made impossible any approach to the shore, a ship's boat might be able to approach within forty or fifty yards of terra firma without grounding. Here a further transfer of personnel and goods was necessary, this time to the fantastic carts so well described by Parish:

"On the broad flat axle of a gigantic pair of wheels, seven or eight feet high, a sort of platform is fixed of half a dozen boards, two or three inches apart, letting in the wet at every splash of the water beneath; the ends are open—a rude hurdle forms the side, and a short strong pole from the axle

completes the vehicle; to this unwieldy machine the horse is simply attached by a ring at the end of the pole, fastened to the girth or surcingle, round which his rider has the power of turning him as on a pivot, and of either drawing or pushing the machine along like a wheelbarrow, as may be momentarily most convenient . . . in this manner, for the first time, I saw the cart fairly before the horse."²

Until the middle of the nineteenth century, this was the only means of effecting a landing at Buenos Ayres. Then, in the fifties, a wooden pier of red *quebracho* wood was constructed for the convenience of the passenger traffic. This pier or mole extended out from the shore for a distance of perhaps half a mile, and, on ordinary occasions, one might disembark here and thus avoid the ordeal of the carts. Unfortunately, when the north wind blew strongly, the pier was awash; or, with a brisk gale from the south, the inner roads became so shallow that even a light boat grounded before reaching the pier. A similar mole for freight, leading to the Customs House, was finally completed in the sixties.

According to Schmidtmeier (1820), "The view of Buenos-Ayres, from its roads and at landing, offers nothing pleasing."³ Situated on an inconsiderable ridge, the low houses of the city in the 1820's presented an uninteresting silhouette broken only by the towers of a few churches and an occasional *ombú* tree. A "fishing town," a "picture without a background," and a "vast mass of bricks piled up without taste, elegance, or variety" were only a few of the insults heaped upon the city by disgruntled foreigners.⁴ To the more charitably disposed traveler, however, the first glimpse of Buenos Ayres might have its better side:

"The effect of approaching the city was very peculiar in one respect. The land upon which the town is built is not very high, and there is no high land back or on either side of it, and looking towards the town was like looking out to sea. Suddenly we descried the domes of the churches rising out of the water, and thro' the glass could make out the upper masts

of the shipping; as we approached nearer, the tops of the lower buildings became visible and so on until the whole was to be seen . . . It seemed strange to thus see a city literally rising out of the sea.”⁵

As a newcomer to Buenos Ayres slipped from the cart that had brought him damply to land, he was likely to gaze in jaundiced fashion at the unpretentious *alameda* (public walk) lined with “small unhandsome trees” which passed along the waterfront and to pick his way daintily around the corpses of dead horses (thriftily skinned) which lay rotting on the beach. The final blow was the almost immediate discovery that the good citizens of Buenos Ayres were not averse to washing their dirty linen in public, for there on the shore, “in the midst of the impurities of the town,” was a horde of black washerwomen pounding and soaping their clothes upon the rocks and at last spreading them out *in situ* to dry. Sometimes this “soap-sud” army extended along the beach for as much as two miles.⁶

Thoroughly convinced by this time that he had been cast upon a barbarian shore, the English or American traveler of the twenties hastened to seek refuge at that famous hostelry, Faunch’s Hotel. After small beginnings in the early years of the decade when there was “nothing about it which resembled an English hotel,”⁷ Faunch’s was moved to better quarters near the cathedral where it occupied a large and elaborate house which had been built by an Englishman named Thwaites; here accommodations were “excellent,” and an atmosphere of solid British respectability warmed the hearts of all true sons of John Bull while English fireplaces toasted their ample backsides.⁸ The change of location probably came about the end of 1826 or early in 1827; this would explain the complaint of Beaumont that “everybody and still nobody knew Faunch’s” when he solicited directions to the hotel.⁹

Fortified at Faunch’s with good imported ale or stout, foreign visitors plucked up their courage and sallied forth to see the town. Its regular streets, with intersections always at

right angles, never failed to impress one accustomed to the winding thoroughfares of London or the cowpaths of Boston. About 1822 the main streets of Buenos Ayres were paved with granite; the British claimed that this was the result of the introduction of the English carriage which forced the elimination of those fabled mudholes into which the Porteños had been wont to throw dead cats and dogs.¹⁰ Although the sidewalks were narrow, the streets were kept fairly clean so that in dry weather pedestrians might venture forth without risking an early trip to the cleaners.

In the center of town was the plaza, of which Brackenridge said, "The plaza, or great square, is at least twice as large as the statehouse-yard in Philadelphia, and is unequally divided into two parts, by an edifice long and low, which serves as a kind of bazaar, or place of shops, with a corridor on each side the whole length, which is used as a shelter for the market-people. At these shops or stores, which are pretty well supplied, they can make their purchases without the trouble of wandering throughout the town. The space between this and the fort is that appropriated for the market. The opposite side, which is much larger, is a kind of *place d'armes*; and fronting the building just spoken of, and which intercepts the view of the fort, there is a very fine edifice, called the *cabildo*, or town-house, somewhat resembling that of New Orleans, but much larger. . . . Near the center of the square, a neat pyramid has been erected, commemorative of the revolution, with four emblematic figures, one at each corner, representing justice, science, liberty, and America, the whole enclosed with a light railing."¹¹

Throughout the colonial period, and even as late as the middle of the nineteenth century, the stone and adobe houses of Buenos Ayres were rarely more than one story in height. They were arranged in hollow squares with all rooms opening into a central courtyard. Roofs were flat, sometimes fitted with seats "much frequented by the inhabitants in summer."¹² These flat roofs were also useful in catching rainwater

which was stored in cisterns located in the courtyards or under the houses themselves.

Some districts of the city were less desirable than others. Unlike modern cities, the slums of old Buenos Ayres were in the suburbs, which "inhabited by mestizos and negroes are filthy."¹³ At a later date (after 1850), the waterfront was notorious. "The taverns in the vicinity of the beach are much frequented by the English sailors, often, of course, in a state of intoxication and disposed for a row. One of them, when I was there, quarreled with a sentry, overpowered him, took his musket, bent it, and then gave it back, with the recommendation of its being able to shoot round a corner."¹⁴

Beyond the slums, however, at the very periphery of the city was a most attractive area dotted with the *quintas* (small country houses) to which the more prosperous citizens retired during the hot summer months. With their agave hedges and groves of peach, willow, and olive trees, the *quintas* were, as Darwin said, "quite pretty."¹⁵ One of the showplaces of the second quarter of the nineteenth century was Palermo, the country estate of the tyrant Rosas, situated about three miles from the city and connected with it by a macadamized road. Palermo, in its heyday, was considered sufficiently distinguished to be honored in the sketches of Sir William Gore Ouseley.¹⁶

The population of Buenos Ayres increased from perhaps forty or fifty thousand in the twenties to two hundred thousand by 1870. The city grew rapidly after the expulsion of Rosas in 1852, and this growth was accompanied by modernization. A gas works established in 1853 meant gas-lighted streets; a railroad was constructed which ran out from town a few miles toward the southwest, and omnibuses appeared on the city streets. In 1859 Buenos Ayres had "an air of civilization,"¹⁷ the native costume was seen less often in the streets, and, by 1865, "magnificent houses, almost palaces," theaters, an opera house, and a concert hall aroused admiration for this "large and handsome city."¹⁸

A permanent feature of the Buenos Ayres region, however, was not capable of improvement: that was the climate. Back in 1826 a future governor of Canada, F. B. Head, complained that "the town of Buenos Ayres is far from being an agreeable residence for those who are accustomed to English comforts."¹⁹ In the winter, houses of the Spanish colonial type were too damp and cold even for Englishmen, although such discomforts were soon mitigated by the introduction of English coal, grates, and chimneys to replace the traditional charcoal brazier. Nevertheless, Parish sadly noted that even these improvements failed to keep books from molding or to eliminate completely a dampness that was responsible for much severe sinus trouble. Dust storms in the summer months filled the air with a "solid mass of brown dust," which produced a "darkness deeper than that of the densest London fog."²⁰ The dust seeped into the houses and covered everything, while a thunderstorm usually followed which transformed the dust in the streets into deep mud. A storm of this type, the celebrated *pampero*, was ordinarily preceded by sultry weather; then heavy black clouds in the north appeared simultaneously with a light cool breeze from the south or southeast. The dust-laden gale, when it came, rushed from the southwest with great violence and little warning. The good people of Buenos Ayres, who usually took to the river during hot weather, squatting like frogs in the shallows with only their heads above water, were very likely to lose the clothes they had left on the bank when a *pampero* caught them unawares. The final phase of the storm—rain, thunder, and lightning—was awe-inspiring. Travelers never forgot the varied colors of the lightning, orange, violet, pink; MacRae insisted that in one storm he witnessed on the pampas, the earth and sky appeared to be discharging electricity at the same time.²¹

Life in old Buenos Ayres possessed a quaintness and charm which was lost in the sophistication that accompanied the modernization of the city. Tradition began to crumble first in the case of interior decoration. In the twenties the larger

houses had "spacious rooms, but bare," with brick or tile floors and whitewashed walls; they were furnished in what Europeans called a "very expensive, but comfortless manner."²² A decade later Paris paper had covered the walls, Brussels carpets the floors, and the "tawdry North American furniture" had been banished through the combined efforts of French and English upholsterers.²³ Although French prints succeeded marble vases, the English pianoforte and the inevitable brazier were still standard equipment for conservative Creole households.

City fare in the early nineteenth century was substantial. Miers, who found little to please him in South America, did not criticize a Porteño dinner of "vermicelli soup, stews, roasts, salads of lettuce and dishes of vegetables dressed in oil" followed by fruit for dessert.²⁴ At a *quinta* near the city one might expect an *olla* (a thick stew-soup containing meat, potatoes, and onions), fowls, "hashes and stews," with fish as a last meat course followed by sweetmeats, milk, and honey.²⁵ It was always possible that the *pièce de resistance* might be "carne con cuero," an ox roasted in its hide so that the juices might not be lost.

In the city of the twenties, evenings were often pleasantly spent at dancing parties where the Spanish contradance, waltzes, and minuets were the favorites. *Tertulias*, informal evening parties marked by sprightly conversation, instrumental music, and singing, were never hard to find. The piano and the guitar held no mystery for the accomplished senorita whose formal education had probably not extended equally far into the realms of literature and art. Handel and Mozart were as well known in the Argentine as elsewhere in Latin America. Even before 1800 Davie wrote home to England to secure a complete set of Handel's oratorios for a female acquaintance in Cordova who wished to present them to the Convent of St. Benedict.²⁶ In the same provincial town three decades later (1825), Andrews watched a young girl enter a convent to the tune of Handel's "Waft her, angels, to the

skies.”²⁷ He also reported that the ladies of Cordova could play Mozart’s most difficult sonatas.

Travelers’ remarks were less favorable when it came to the state of the drama at Buenos Ayres. According to George Fracker (1817): “The theatre is a low and miserable looking edifice . . . and the performers on a par with the building.”²⁸ Both he and Brackenridge complained that the voice of the prompter, as he read the lines which the players repeated after him, was much too audible.²⁹ Spectators had to bring their own chairs and the roof leaked, but the theater was so popular that people even got up parties to attend rehearsals.³⁰ The dramatic bill of fare included Spanish comedies, Italian operas, and Shakespeare—“I went once to see Shakespeare murdered,” says Fracker.³¹ It is worth noting that the introduction of Italian opera in Buenos Ayres anticipated the first operatic performance in the United States by seven or eight years; Robertson (1817) mentions two seasons of Italian opera,³² while North Americans were not exposed to a single opera before 1825. Andrews (1825) and Beaumont (1827) speak of the opera in Buenos Ayres, and Temple (1826) says that he attended a performance of the *Barber of Seville* which was “very good.”³³ Both Andrews and the Porteño audience were shocked in 1825 by the “distasteful” gyrations of a male ballet dancer (Portuguese) from Rio whose costume was “indelicate.”

Gerstäker, who visited Buenos Ayres in 1850, did not attend the opera, but he did see a play or two. He reports that in the Age of Rosas it was customary for all the performers to assemble on the stage at the beginning of the play: “The principal characters now call out, with a loud voice: ‘Viva la Confederacion Argentina.’ Chorus: ‘Viva.’ Principal characters again: ‘Mueran los salvajos Unitarios (Death to the Unitarian Savages).’ Chorus: ‘Mueran.’ The curtain then drops; and, after a brief interval, the piece is allowed to begin.”³⁴ This display of loyalty to federalism was made not only at the theater and the opera but also at puppet shows.

After the expulsion of Rosas, the opera boomed at Buenos Ayres. The Colón Theater, a new opera house, was erected in 1856; it seated about twenty-five hundred and its roof had been made in Dublin, but Burton thought its appearance rather followed the "railway station style of art."³⁵ In these later years, well-known singers as well as young aspirants to operatic fame appeared in Buenos Ayres. Anna Bishop, who had run away from the "Home! Sweet Home" of her composer-husband, Sir Henry, sang at Buenos Ayres in the fifties. In 1859, at the Colón Theater, Peabody managed to sit through one act of *Linda* (probably the *Linda di Chamouni* of Donizetti, composed in 1842), a "mediocre performance" in which "a woman called Fabri was the prima."³⁶ By the seventies all was well; Mrs. Mulhall enjoyed the winter opera season immensely and was extremely enthusiastic about the concerts by the German Philharmonic Society, a local organization.³⁷ Her judgment, however, was not confirmed by the Belgian consul general, who thought the Germans had their limitations: "*Discordia semina rerum*," he remarked with one of his rare flashes of humor.³⁸

For the Age of Rosas, perhaps the truest picture of the cultural advancement of Buenos Ayres is to be found in the statistics for 1836 as given by His Britannic Majesty's consul, Woodbine Parish. In that year the city contained 358 wholesale and 348 retail stores, 323 shops of tailors, shoemakers, and allied artisans, 44 hotels and eating houses, 76 flour shops and bakeries, 13 livery stables, and 874 carts and carriages; most revealing of all are these figures: 6 booksellers and 598 *pulperias* (grog shops)!³⁹

In a city of sixty thousand inhabitants supplied by almost six hundred grog shops, no one was likely to perish of thirst. Actually wine, brandy, and ale could be had much more easily than water. There were a few wells of brackish water, and there were also the private cisterns for rainwater maintained by the wealthier citizens, but most of the water consumed in the city was carried up from the river in huge butts mounted

on carts; after it had stood for twenty-four hours, this water was potable. On the other hand, milk for city dwellers was practically unobtainable. The so-called Creole cows could be milked only once a day; even then, the process could not be initiated without the aid of a calf, and a quart of milk a day from one cow was considered very good.

C. S. Stewart, chaplain of the U.S. frigate *Congress*, described the almost incredible condition of affairs which existed as late as 1852. At that time the dispensers of milk and bread were (respectively) the *lecheros* and *panderos* who rode through the streets mounted on shabby rough-coated mules or horses. The riders sat longitudinally on the shoulder blades of their beasts, with their legs stretched out almost at full length and their supplies "for distribution are balanced on either side from neck to tail" with the milk in long tin cans of different sizes "stowed in different compartments of leather" shaped like "old fashioned saddle bags." Bread was carried in panniers of ox hide "with the hair on." The bakers of Buenos Ayres in the fifties were Frenchmen, Germans, and Spaniards, while the milkmen were Basque or German settlers who lived outside the city. Although milk sold for twelve to fifteen cents a quart and butter for seventy-five cents a pound, the indolent natives were content to leave this lucrative business to foreigners.⁴⁰

Perhaps it is unfair to say that the denizens of the Rio de la Plata were indolent, especially if one recalls the classic yarn of Head about the Scotch milkmaids.⁴¹ It seems that back in the twenties it occurred to some of "the younger sons of John Bull" that, with all the beautiful cows and fine pasturage along the shores of the Plate, it should be possible to provide the people of Buenos Ayres with butter for their bread. Consequently, a churning company was organized, and a cargo of Scottish milkmaids was dispatched to the Argentine. The arrival of these young women occasioned some surprise on the pampas; "however, private arrangements had been made, and the young women, therefore, had milk before it was

generally known that they had got cows. . . . [soon] the shops of Buenos Ayres were literally full of butter. But now for the sad moral of the story: after the difficulties had all been conquered, it was discovered, first, that the butter would not keep:—and secondly, that, somehow or other, the gauchos and natives of Buenos Ayres—liked oil better!”

Not all the foreigners who came to Buenos Ayres in the early years of the nineteenth century were birds of passage like Temple, Head, Andrews, or a dozen others who winged their way homeward after a few months—to write best-sellers. Many came to stay, to make new homes for themselves, and few of the real settlers were writers—it would be interesting to know how many of them could even read. By 1830 France, Germany, the Italian peninsula, and Ireland were well represented in Buenos Ayres, although the most influential group of foreigners was composed of English and Scotch.

British (and Scotch) infiltration of the Argentine began at least as early as the ill-fated invasion of 1806–07 when a British expeditionary force came very near to gaining permanent possession of the Plate area. After the troops were withdrawn, many captives, deserters, and merchants remained behind, while throughout the next decade an additional British influx came as the result of Platine independence from Spain. By 1824 there were at least three thousand British subjects in Buenos Ayres; of the more than thirteen hundred persons who had taken the trouble to register with the consulate, about one fourth were merchants, clerks, and artisans, whereas the remainder were laborers.⁴²

The leading British merchants, who in the twenties controlled perhaps half the foreign trade of the city and province, formed a tight little group which congregated in the Buenos Ayres Commercial Rooms to read English newspapers and periodicals or met each quarter to dine at Faunch’s and discuss common problems or business triumphs. The British

community had before long an Anglican church, a burial ground, and a lending library. Several attempts were made to establish English language newspapers at Buenos Ayres; the most successful of these was the *British Packet*, which had a life of nearly three decades (1826-53).⁴³ As early as 1820 James Thomson of the Bible Society had introduced the Lancastrian system of teaching and by 1824 there were about twenty schools in the city employing the Lancastrian plan.⁴⁴ Although there is no mention of cricket, the energetic Britishers early startled the natives by holding a walking race (a novelty in a country where even the beggars rode horseback), which was won by a Dr. Dick, who walked twenty-four miles in less than six hours; later, a rowing club was organized and by 1870 polo had been introduced.⁴⁵

Since the commercial history of Buenos Ayres has been the subject of a number of serious and detailed studies,⁴⁶ it would be pointless to discuss it here, but it may be interesting to note some features of trade in the earlier period. While the exports of Buenos Ayres after independence and through the twenties consisted mostly of hides, tallow, jerked beef, and barrels of wine (from Mendoza and San Juan), the imports were more varied. In 1817 Samuel Haigh saw in Buenos Ayres woolens from Halifax, Haddenfield, Leeds, and Wakefield, cottons from Glasgow, Paisley, and Manchester, hardware from Sheffield and Birmingham, and pottery from Worcester and Staffordshire.⁴⁷ Even then, manufacturers sometimes attempted to produce wares for definite limited markets, but the enterprising British maker of chamber pots who shipped to Buenos Ayres a cargo of his product emblazoned with the "patriot arms" soon came to grief; all these handsome vessels were smashed by irate Porteño customs officers who misinterpreted his intended gesture of good will. On the list of imports for 1822 appear, in addition to the customary large quantities of cottons and woolens, the following curiosities: 370 clocks and watches, 57 pianos, 3974 swords, 589 gross of playing cards, 7382 muskets, fowling pieces, and pistols, 4097

barrels of porter and ale, and 2511 silk umbrellas.⁴⁸ Half the imports of Buenos Ayres were derived from British sources, although the United States was supplying flour, furniture, codfish, shoes, carriages, and the coarse, unbleached cloth known as "domestics." Sugar, rum, and rice from Brazil, silks and linens from France, wine and brandy from Spain, and silks, crapes, nankeens, tobacco, and tea from the Orient were also significant.

The British were not wholly engaged in trade; some were would-be colonizers. The Robertsons, who had arrived early and made money trading up the Parana, turned to colonization in the twenties. James Parish Robertson, the "William Penn of the Pampas,"⁴⁹ settled a group of Scotchmen at Monte Grande a few miles south of Buenos Ayres. At first the colony prospered, but the great drouth which began in 1827 and the political disturbances of 1829 eventually brought failure to the project.⁵⁰ A similar venture undertaken by Beaumont, who left Plymouth in 1826 with two hundred "men of the laboring class," was halted because of the war against Brazil in which Buenos Ayres and the Uruguayan patriots were involved.⁵¹

For almost a quarter of a century after 1829, the warm smile of prosperity was but seldom turned upon the shores of the River Plate, nor was information about the country so readily available to North American and European audiences as it had been in the twenties. With the expulsion of Rosas in 1852, however, the door was opened; following the formation of the Argentine Confederation in 1853 and the inclusion of Buenos Ayres in the Argentine Republic (1861), foreigners were again welcome in the Rio de la Plata. To this later, bustling age we shall return in Chapter IV.

CHAPTER III

Westward Ho!

"The Gauchos . . . are, in appearance, a fine race, but, in comparison with the peasantry of England and France, little better than a species of carnivorous baboon."

—*Sir Edmond Temple*¹

IN THE decade between 1817 and 1827 many of the foreigners who landed at Buenos Ayres were en route to Chile or Peru. With a choice of proceeding to the west coast of South America either by sea around Cape Horn or by land across the pampas, they almost invariably elected to remain on terra firma; after the long, dreary outward voyage, the prospect of a journey by land, no matter how arduous, was infinitely more pleasing than that of a return to the narrow, noisome confines of a sailing vessel. Other deciding factors were: first, that the land journey was actually the shorter in point of time; and second, that sailings to the Pacific were irregular and infrequent.

From Buenos Ayres to Esquina de Medrano on the Río Tercero, travelers by land to Chile and Peru followed the same route: westward forty or fifty miles from Buenos Ayres to Luxan and then northwest, parallel to the course of the Parana (but some distance from it), crossing the Río Saladillo near its junction with the Tercero, and finally arriving at Esquina de Medrano, about one hundred and thirty leagues (between 350 and 400 miles) from Buenos Ayres. The Peruvian route then led northward through Cordova, Santiago del Estero, Tucumán, Salta, and Jujuy; next, it

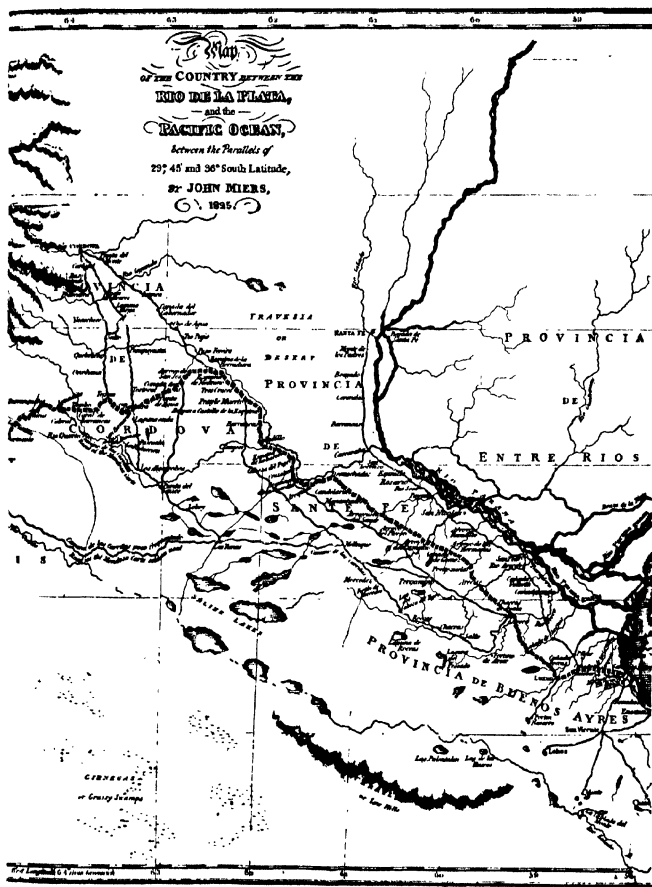
crossed into Bolivia and passed through Tarija, Potosí, Oruro, and La Paz; from La Paz, Lima might be reached either by way of Arequipa or Cuzco. The Chilean route, on the other hand, turned in a southwesterly direction from Esquina de Medrano, crossed the Río Cuarto, and then proceeded westward through Achiras and San Luis to Mendoza. At Mendoza, the "pass city," travelers prepared to cross the Andes by muleback. The trail wound through the posts of Villaviciencio and Uspallata, struggled up over the Cumbre and then down the Chilean side to Santa Rosa; from this point one might go to Santiago or to Valparaíso.

Travel across the pampas was accomplished on horseback or in one of several types of wheeled vehicle. Few Europeans or North Americans, however, were sufficiently hardy to ride any considerable distance on horseback at the headlong pace set by gaucho guides.² John Constance Davie, as befitted a holy man, traveled to Mendoza by ox-cart, a slow journey of almost a month.³ Peter Schmidtmeier employed a two-wheeled carriage (*birlocho*),⁴ but the most common conveyance on the pampas was the four-wheeled *galera* or diligence. A *galera* was a long closed van with seats along the sides and a door at the rear; drawn by four (or sometimes six) horses, it could carry as many as eight persons. It had neither springs nor tires; the spokes and the circumference of the wheels were bound with wet hide strips, which, after drying, were harder than iron. Since shafts were lacking and collars unknown, the horses were hitched to the carriage by hide traces (lassos), which ran from a ring in the saddle of each horse to the pole or tongue of the carriage. The strangeness of this turnout was magnified by the spectacle of a postilion mounted on each horse.

In the twenties there was no organized transportation between Buenos Ayres and Mendoza. Thus, it was necessary for the prospective traveler to hire or buy a coach, engage riders and a guide, and lay in a few provisions—wine, spirits, biscuits, and other items not to be found on the pampas



Routes across the Pampas about 1825



(main route indicated by dotted line)

where the population seemed to exist on meat (beef) and *maté*. Baggage was stowed in hide trunks (*petacas*), and each person was well advised to bring his own *almafres* (mattress in a leather case). Journeys across the pampas were expensive: postilions to Mendoza were paid at least twenty dollars each, and guides twice as much, while there was an additional outlay for horses and a government license that entitled the bearer to fresh relays at the post houses; finally, most of the food had to be purchased along the way. Temple estimated that it cost his party of seven about two thousand dollars to go from Buenos Ayres to Salta, a distance of about thirteen hundred miles.⁵

Although a government courier might make the trip between Buenos Ayres and Mendoza (between 900 and 1000 miles) in five days, the journey thither in a *galera* took more than two weeks. After passing the *quintas* of Buenos Ayres, the road led through a region covered with aloes, prickly pear, and vast thistle beds which constituted a great fire hazard in the dry season. North of Luxan came the pampas, where the smooth country with its fine short grass appeared to be one continuous pasture or an "interminable bowling green."⁶ The horses were cruelly spurred to maintain a constant pace of nearly twelve miles an hour. Over the first half of the route, where the post houses averaged perhaps five leagues apart, it was possible to get fresh horses at regular intervals. In the west, however, the distance from post to post sometimes lengthened to more than fifty miles; then, it became necessary to travel with a *tropa*, a number of extra horses which served as relays on the road. Distances traveled each day varied considerably depending upon the number of streams to be forded (there were no bridges) and the stops which had to be made for repairs to the *galera*; fifty miles a day was probably average, while seventy-five was exceptional.

Travelers usually spent the night at a post house in order to be reasonably assured of food, shelter, and protection from Indians and hold-up men (*salteadores*). A post house on the

pampas was in no sense a tavern or an inn; it was an adobe hut with a mud floor and a thatched roof where the travelers mixed indiscriminately with the post keeper and his family. The most elaborate of these way stations might consist of two buildings: the house of the post keeper, sometimes containing his living quarters and a *pulperia*—and a second hut where the travelers were supposed to sleep but rarely did because of the usual complement of fleas and other vermin. Beds either were low mud bunks or consisted of a bull's hide lashed to a wooden frame suspended from four posts. At such a place, the foreigner encountered for the first time the realities of life in the Argentine:

"On entering the rancho at the first post . . . we found it occupied by four gauchos and three women, grandmother, mother, and daughter; half a dozen large dogs lay in one corner, a poor little infant swung in a cradle, or rather a piece of hide, suspended from the ceiling; and several generations of fowls, turkey and ducks, availed themselves of the little space which remained vacant. Some of the fowls were taking their siesta upon the bodies of the sleeping guests . . . The concert produced by this family union was very inharmonious."

The women of the pampas were anything but stylish. Beaumont complained that they did not wear hats or caps, stays, shoes, or stockings.⁸ Their sole garment was a coarse woolen gown that was never washed. It goes without saying that they rarely washed themselves. Housekeeping kept pace with dress: scrubbing was unheard-of,⁹ and a broom was likely to raise too much dust. In addition to all this, "There was a group of three young girls about 1/2 Indian, as are nearly all the people one sees; they were rather pretty, with black eyes, dark complexions & long black hair. There was one seated on the ground, with her head lying in the lap of another behind, who was busily engaged removing the unwelcome inhabitants of her head; behind the second was a third upon her knees, performing the same kind office for her friend or sister: the

hunt was conducted with the greatest perseverance & apparent interest: every time one of the girls was successful & captured an enemy, it was at once removed to her mouth, precisely in the same manner as is seen in monkeys."¹⁰

The gaucho, the male of this curious species of human being which inhabited the pampas, had been introduced to the reading public of Europe and North America even before 1800, and the travelers who saw him for the first time in the flesh were more or less prepared in advance. Still, they admired his horsemanship, his skill with the lasso and bolas, and his perfect adaptation to his environment. In the pastoral society of the pampas, man was absolutely dependent upon the horse and the cow which provided him with food, clothing, shelter, and transportation.¹¹ Culture was so completely equine that a man did not regard himself as fully clothed unless he was sitting upon his horse; mention has already been made of the mounted beggars of Buenos Ayres, and one traveler reported seeing a dentist operating on horseback.¹² As Sarmiento said,¹³ the education of the gaucho consisted of learning to use the lasso and bolas, of learning to ride as soon as to walk, of racing and practicing feats of horsemanship, and of breaking his first colt at the age of puberty; with early manhood came complete independence and idleness.

The Beau Brummell of this horsey world was undoubtedly a type described by Andrews: "This pretty fellow possessed a kind of wit and small talk which was extremely amusing . . . He was dressed in the pink of the mode in his own part of the world; he wore a handsome white figured *Poncho*, something in appearance like a fine Indian shawl. Beneath it hung the lower extremities of a pair of white trowsers, with open lacework around the bottoms."¹⁴ Sandals of colt skin, Peruvian silver spurs weighing a pound each, and gold earrings completed the ensemble. The man was an itinerant gambler.

Gaucho horses were not large—fourteen to fifteen hands high, but they were strong and possessed much endurance; a

hundred miles in twelve hours was not for them an unusual journey.¹⁵ All horses were grass-fed (a revelation to British horsemen), and their tails were never cut. No one in the Argentine was ever seen riding a mare, for everyone knew that mares were useful only for threshing grain, and to mount one was an act deserving the loudest scorn and ridicule. "Don't spare the horses" was an admonition seldom necessary on the pampas; if a man rode a horse to death, as he frequently did, it was only a matter of moments before a fresh mount could be secured. In the Argentine "all are horsemen; none are grooms," as Latham said,¹⁶ and a veterinary was unheard of at Buenos Ayres even in the sixties.

The *recado*, or gaucho saddle, was a complex affair of wood and cloths which weighed about sixty pounds; in addition to the stirrups, it had ten separate pieces. In saddling, the first step was to put several saddle cloths or sheepskins next to the horse's back, and above these came two *caronas* of rawhide and one of leather. Each *carona* was about four feet long and two feet wide; it was arranged so that it hung down evenly on each side of the horse. After this came the *recado* proper, a form of wood covered with leather which had a peak fore and aft. The whole was now made fast by a broad hide girth (*cincha*) made in two parts: the shorter went over the *recado* and the longer underneath the belly of the horse. To the upper part of the *cincha* was attached the ring used for anchoring the lasso or for pulling carts and carriages. Above the *recado* were placed two or three more sheepskins, and covering all was a piece of well-softened leather.¹⁷

The heavy stirrups were distinguished by having a very small aperture into which the rider could insert only his big toe. This arrangement was probably the result of the peculiar gaucho boot which Andrews described as follows:

"The boots . . . are formed of the ham and part of the leg-skin of a colt, taken reeking from the mother . . . at this stage the skin strips off easily, and is very white and beautiful in texture and appearance. The ham forms the calf of the

boot, the hock easily adapts itself to the heel, and the leg above the fetlock constitutes the foot, the whole making a neat and elegant half-boot, with an aperture sufficient for the great toe to project through. This toe is the only part of the foot the gaúcho [*sic!*] places in the stirrup."¹⁸

The principal gaúcho amusements revolved around displays of horsemanship—racing, horse-breaking, and riding at the *sortija*, a small ring suspended by a thread toward which one rode at full tilt with the object of carrying off the ring on a small stick. There were also trials with the lasso and the bolas—readers of *The Voyage of the Beagle* will recall how Darwin in an unskillful moment bola-ed himself and his mount.¹⁹ Like all good Latin Americans, the gaúchos loved to wager and to play cards; dominoes absorbed them in calmer moments, but at the *pulperia* after a few drinks, there was likely to be knife-play that was anything but harmless and amiable.

The gaúcho diet, which travelers on the pampas had to share, appears most often to have consisted of *carne asada* and *maté*. The former is ordinarily translated (with extreme charity) as "roast beef." The first step in its preparation was to dispatch the nearest available bovine quadruped and to cut off a few hunks of beef. The dripping meat was then dangled from a skewer over a bed of coals until well scorched. When pronounced done, strips of the meat were seized by the interested parties, each of whom, clenching a strip firmly between his teeth, severed the morsel close to his lips with a large knife, devoured it, and repeated the process until the strip was gone. *Maté*, Paraguayan tea, was made by pouring boiling water over the powdered leaves and twigs of the herb in a gourd or small silver cup. The resulting infusion was then sipped from the vessel through a tube (*bombilla*). At a good post house a traveler might hope to purchase eggs, fowls, vegetables, or perhaps mutton; sometimes there was *chupe*—fowls boiled in rice with potatoes, tomatoes, eggs, and onions. It was not unusual, however, to find that the inhabitants of

the post house themselves had nothing at the moment to eat, much less to sell.

Insect pests were not confined to the post houses. Mosquitoes abounded along the Parana and the roads that paralleled the river. Andrews says, "Myriads of those insects which a late President of the Royal Society is said to have asserted were incipient lobsters, made us their prey."²⁰ And the mere mention of mosquitoes recalls the story of how Robertson sent two pounds of the same (fortunately, deceased) to a surprised señorita upriver.²¹ In December the locusts were reputed to be most destructive, but the great flights noted on the pampas usually came in September and October or in February and March.²² Darwin says, "We observed toward the south a ragged cloud of a dark reddish-brown colour. At first we thought that it was smoke from some great fire on the plains; but we soon found that it was a swarm of locusts. They were flying northward; and with the aid of a light breeze, they overtook us at a rate of ten or fifteen miles an hour. The main body filled the air from a height of twenty feet, to that, as it appeared, of two or three thousand above the ground . . . [and the sound] was like a strong breeze through the rigging of a ship . . . When they alighted, they were more numerous than the leaves in the field, and the surface became reddish instead of being green."²³

Sometimes it was possible to drive off the locusts by shouting, discharging firearms, waving branches, and lighting fires, but once they settled upon the land, all was lost. Page speaks of a swarm which rendered an orange grove in Paraguay "as leafless as the orchards of northern latitudes in mid-winter."²⁴ At a later date (1875), Mrs. Mulhall reported that her train en route from San Luis to Rosario was delayed for hours when a horde of locusts settled on the tracks.²⁵

One of the great pests of the pampas was not an insect, but an animal, the *bizcacha*. This curious creature, an enormous rabbit with the fur of a rat, had a tail like a beaver "stuck on the wrong way"; its face suggested the unfortunate cross-

ing of a badger and a guinea pig.²⁶ The *bizcacha* was the excavator of the holes into which Head and all other horsemen on the pampas were continually falling, and the animal had the strange habit of dragging all sorts of objects—bones, stones, thistle stacks—to the mouth of its burrow. Darwin related the story of a gentleman who lost his watch one dark night and found it the next day after a diligent search of all the *bizcacha* holes in the vicinity.²⁷

But now let us go along with our travelers toward Mendoza.

After crossing the Saladillo and passing through Barrancas and Zanjón, mere posts in the twenties, one came to Frayle Muerto, "the capital of the pampas," which consisted of fifty mud huts and perhaps two hundred people in 1823.²⁸ In this region the pampas gave way to the *monte*, a wooded country interspersed with grassy parks. It was essentially a tree-steppe and the vegetation consisted of short grass and "deciduous broadleaf scrub trees with a marked xerophytic character."²⁹ Most of the trees were thorny: the *algarroba*, with its red, cedar-like wood used for posts; the *chañar*, with smooth yellow bark, which had a tough wood later employed for ax handles; and the lesser scrubs, *espinilla* and *tala*.³⁰

Beyond Esquina de Medrano the travelers frequently encountered the mule trains from Mendoza plodding along toward the river ports or Buenos Ayres. Led by a *madrina* (a bell-mule), the picturesque cargo mules with their straw saddles each carried two sixteen-gallon hide-bound barrels of wine or several leather bags of figs; on the return journey they bore the empty casks as well as square hide boxes of Paraguayan *maté*. The sight of a night encampment of the muleteers and their beasts with the supper fires casting wierd shadows upon the traditional outer circle of mules and baggage was one the foreigner never forgot.

One also met or passed huge ox-drawn freight carts. These gigantic wooden boxes, with thatched sides and roofs of hide, lumbered along on two large wooden wheels seven feet in

diameter. On measuring one of the carts, the methodical Peabody found that the wagon bed was eleven feet long and four feet wide; the total height of the vehicle was twelve feet.⁸¹

“ . . . the wagons are drawn by 6 oxen, two abreast: the yoke . . . is fastened by leather thongs to the horns . . . The driver sits inside on top of the load & regulates the direction of the oxen by two poles: he has in his hand a cane pole 8 or 9 ft. long, armed with an iron point, with which he pokes



Pampas Carts

the two hind oxen: an enormous pole 30 or more ft. long is suspended from a short beam projecting from the forward part of the roof of the wagon & being heavy at the butt, & running back the length of the wagon & within, it balances very well: at the proper distance an iron pointed arrangement is fixed to the pole, & with this they prick up the second yoke & a bamboo pliable pole 7 or 8 ft. long is lashed to the heavier one, armed with an iron tip, with which they regulate the forward yoke: the whole affair about 30 ft. in length. It is very odd to see these great things slowly moving about over

the oxen . . . they look like the feelers of some gigantic, slow crawling animal."⁸²

The distance from the heads of the first yoke of oxen to the rear of the cart was about forty feet, yet this apparently clumsy arrangement was based upon experience and sound reasoning. The four lead oxen were so far in advance of the third pair of beasts and the wagon that when a mudhole was encountered or a stream had to be crossed, the leaders were usually standing on firm dry land before the wagon reached the danger spot.

The country toward San Luis was rough and hilly, reminiscent of "Vermont or New Hampshire." Finally, San Luis itself was reached, the most sizable town (1200 to 1500 inhabitants in 1823) between Buenos Ayres and Mendoza. Far from pretentious, the town was entered by a long street lined with mud walls. A few mud brick houses, one or two white-washed, laid out in squares; a plaza; a church; a *pulperia*; some fig trees. That was San Luis.

Yet San Luis had its points, or rather point, of interest, the celebrated Nose of Don Manuel, a nose among noses. "From the eyes, it branched off, and became wider and longer till it completely hid the mouth and a great part of the chin. Its color was of a deep purple."⁸³ This handsome proboscis was sufficiently notable to be included in the official report of a scientific expedition conducted under the auspices of the United States Navy. The irrepressible MacRae persuaded Don Manuel to sit for a portrait on the promise that the likeness would be sent to a great French surgeon for a diagnosis of the ailment which had produced the monstrosity.

Between San Luis and Mendoza the land flattened again and became more barren and desert-like. Rivers wandered across the country and disappeared or terminated in salt marshes. The largest of these was the Río Desaguadero, "as broad as the Thames at Windsor," which had to be crossed by a primitive ferry. In 1819 the ferry consisted of two twenty-foot hollow log canoes connected by sticks lashed with

hide thongs; double lassos attached to stakes on either bank enabled the ferryman to propel his craft across the river.³⁴ By the twenties, however, the old ferry had been broken up or washed away, and travelers had to cross on rafts of barrels and float their carriages to the opposite bank by the same means.³⁵

A similar barrel raft, but with an interesting variation, existed on a river north of Cordova where Indian women, *in puris naturalibus*, swam across with towlines in their teeth.³⁶ This is undoubtedly the same crossing mentioned by Temple in which he speaks of the male and female Indian *nadadores* who launched a fleet of hide *balsas* in order to assist his party.³⁷

After the passage of the Río Desaguadero, the great cordillera of the Andes began to be visible, and the travelers knew that their long journey across the Argentine was almost ended. Two days more, perhaps, and then the road would be lined with green fields of alfalfa enclosed by four-foot walls of brown adobe. Farther on irrigation ditches, orchards, trellised vineyards, and poplar groves promised the quick advent of some measure of civilization. And, at last—Mendoza!

"The approach to the city is very beautiful: in the foreground were the green fields of lucerne and clover, mixed with the vineyards bending under their purple burden, and watered by innumerable streams in all directions from the mountains; further on over this rich country was seen the city of Mendoza, whose towers and minarets rose above the bright green of the surrounding poplars. These again were finally contrasted with the majestic Cordillera ascending proudly in the background in noble masses of light and shade, while the snow-capped summits of the Andes towered over all."³⁸

Mendoza, the headquarters of General San Martín before his successful campaign of 1817 which brought the independence of Chile, was an oasis that owed its fertility to rivers and streams fed by the snows of the Andes. It was also the major gateway to the west, since it commanded the road

leading to the great Uspallata Pass. As a center of agricultural production, it sent wine, brandy, wheat, flour, and dried fruit eastward to San Luis, Buenos Ayres, and other towns, while it shipped hides, soap, and tallow westward over the Andes to Chile. In addition to vineyards boasting sixty thousand plants in 1817, the inhabitants of Mendoza also cultivated melons, figs, pears, and quinces.³⁹

Along the wide streets of Mendoza were neat whitewashed houses of sun-dried brick; some houses had the conventional flat roofs, but the majority were protected by peaked roofs of thatch, mud, and chopped straw. Unlike the huts of the pampas, the houses of Mendoza were equipped with windows and sashes, although glass panes were not common.⁴⁰ The *alameda* (public walk), which ran parallel to the Andes, was shaded by poplars; at night it was often illuminated by candles placed within paper lamps, and the band played for those who promenaded or sat along the way eating ices and sweetmeats.⁴¹ There were *tertulias* in Mendoza, too, where people sang and danced and played forfeits. One could see "grave looking old Dons, smoking paper cigars, sipping ice cream, and playing a dull and stupid game, somewhat like whist."⁴²

Travelers always seemed to meet the celebrities of Mendoza: Dr. Colesberry, who had come from the United States seeking a cure for his consumption; "Señor Balenzuela," the friend of Miers and Haigh, a jolly fellow, but a poor marksman—shooting at his wife, he killed her lover instead; and San Martín himself, who was often in residence. Although there was some reason to doubt the ability of Dr. Colesberry as a physician—San Martín lived for years after Colesberry told him he would die within six months—the noted Dr. Gillies, a consumptive Scotchman, who came to town in the twenties, was well known in Europe through his botanical correspondence with learned societies, which extended over the many years of his residence in Mendoza. A man tremendously active in the community, Gillies established a Lan-

castrian school, a public library, a school for girls, a newspaper, a society for mutual instruction, and "a rustic play house." Dr. Day, an Englishman who came later, was a worthy successor to Gillies; he was "an educated man and much respected."⁴³

None of these medicos, however, was able to solve the problem of the great affliction of Mendoza—goiter. There was hardly a visitor to the town who was not impressed by the prevalence of the disease. Most people blamed it on the snow water from the mountains—and they were right although they could not have told you why. Caldcleugh has a tremendously interesting reference to a "wen stick," *palo de gota*, sold in the shops of Mendoza as a cure for goiter; it was made of algae from the "coast of Peru." He says, "If, however, there is any efficacy in this alga, which is chewed, may it not proceed from the presence of *iodine*, which it is said has been lately applied with success in this disorder?"⁴⁴ Vigne must have been referring to a similar *remedio* in the fifties when he reported, "At Oran [northwestern Argentina], I was shown seaweed as a cure for goitre."⁴⁵

Perhaps it was a heritage from its first settlers, who came from Chile in the sixteenth century, but Mendoza always seemed more progressive than most of the other Argentine towns. The famous poplars, which provided good wood and fine shade, were not indigenous; they had been brought from Europe by a public-spirited inhabitant of the town in 1810. Nor were others behind the times; in a Mendoza house in 1817 Haigh occupied a bedroom with a gilt bedstead, mosquito curtains, and Brussels lace on the sheets and pillow cases—not to mention the "French porcelain service."⁴⁶

Beyond Mendoza on the way to Chile it was not possible to travel by carriage. The passage of the Andes could be safely accomplished only on muleback. Thus, the traveler must expect to spend several days in Mendoza hiring guides and mules and laying in a stock of provisions—including onions

or garlic, which "render the traveller long-winded."⁴⁷ Although it was less than two hundred miles to the Chilean side of the cordillera, one could not hope to accomplish the journey short of a week's time.

The trip was usually begun on a note of exasperation. The *arrieros* (guides) never came at the time agreed upon for departure. Then, the cargo mules had to be carefully loaded, an operation that seemed to take hours. Each mule had to be blindfolded with a poncho, so that he would stand quietly while various articles of baggage were strapped to his back. At last, with the sun high in the sky and unmercifully hot, or with the day so far spent that the first stopping place could not be reached before dark, the slow cavalcade was ready to set out.

For the first five miles the road passed between the mud walls, the vineyards, and the orchards of the Mendoza oasis, and then it continued in a northerly direction over barren rising land covered with low thorny trees and shrubs. The mountains to the west and north seemed very close, but, as mile after mile was traversed, the distance to the mountains was not perceptibly lessened. At a fork in the road at the base of a limestone outcropping, the Calera, the Chilean route bore to the left (northwest), while the road to San Juan continued northward. After a long sandy stretch, the base of the first mountain range was reached; at the opening of a ravine leading into the mountains, one came at last to the post of Villavicencio. Here it was possible to obtain water for the first time since leaving Mendoza forty-five miles away.

"The post of Villa Vicencia, which in all the maps of South America looks so respectable, now consists of a solitary hut without a window, with a bullock's hide for a door, and with very little roof," remarked Captain Head in 1827.⁴⁸ Nevertheless, it was the history of Villavicencio rather than its appearance that made it seem of importance to the English travelers of the twenties, for they all knew the hair-raising story of their countrywoman, Mrs. John Miers.

In 1819 John Miers, his wife, and a group of English technicians and workmen left England bound for Chile, where they hoped to set up a factory for processing copper. At Buenos Ayres the party disembarked and set off across the pampas. Mendoza was reached with no more than the usual annoyances, but after that trouble began.

Hiring mules and guides, Miers made ready to cross the Andes late in April. Much against the advice of Dr. Colesberry and others in Mendoza, Mrs. Miers insisted upon accompanying her husband although her condition as a prospective mother had already advanced beyond that which even a Victorian could have called "interesting." A few miles out of town, one of the party was left behind by his mule, and, as an *arriero* tried to lasso the creature, his lasso caught in Mrs. Miers' stirrup. Miers dismounted to come to her assistance; as he did so, *his* mule bolted. The rest of the party was now far ahead, the *arriero* was pursuing the first mule, and the two dismounted Englishmen plodded along behind, leading the mule which carried Mrs. Miers. It was dark before the mules were recovered. This meant that Villavicencio could not be reached until the next day and that Mrs. Miers had to spend the night in the open. She collapsed shortly before noon of that next day when they were still a mile or so from the post.

At Villavicencio they made Mrs. Miers as comfortable as they could in the broken-down post house, but the damage had been done. The following afternoon (May 2), she presented Miers with a son. Thanks to the skill of Dr. Leighton of the Chilean Navy, who was in the Miers party, both mother and child survived this first ordeal, although the situation was now extremely complicated. Miers was forced to send his men on to Chile while he and the doctor remained behind with Mrs. Miers. Moreover, one of the *arrieros* must be dispatched to Mendoza with a request for assistance in moving Mrs. Miers back to the town.

Four days passed; four days of cold rain, sleet, and snow.

Food began to reach the vanishing point. Then the *arriero* returned empty-handed: he had been unable to find Dr. Colesberry or the other resident of Mendoza from whom Miers had requested aid. They sent the *arriero* back again. The next day Mrs. Miers was ill—the beginnings of puerpal fever—she had difficulty in feeding the baby. Another day of rain and snow and little food; Mrs. Miers was very ill—

On May 9 the *arriero* came back with a woman (very dirty) and her husband. The woman was a wet nurse, procured through the special efforts of General San Martín; she was also a specialist who refused to do more than feed the baby. The rest of the time she and her husband sat hunched over the fire leaving the care of Mrs. Miers to the two Englishmen. On May 13 a half-dozen peons arrived. They brought food and were supposed to assist in conveying Mrs. Miers back to Mendoza. Unfortunately, most of the food was stolen by the dogs of a wandering guanaco hunter, and the peons refused to set off on foot carrying the litter which the doctor and Miers had fashioned for the sick woman. In desperation, the two Englishmen picked up the litter and started down the trail for Mendoza. Eventually the peons were sufficiently ashamed to bear a hand. Footsore, blistered, parched, and nearly exhausted, the party reached Mendoza after twenty-two hours on the road.⁴⁹

Mrs. Miers recovered, and her baby prospered; six months later she crossed the Andes to join her husband in Chile. In 1827 Captain Head met her at Uspallata (near Villavicencio) as she was on her way back from Chile to Buenos Ayres: "At this moment an English lady, a child about seven years old, two or three younger ones, and a party of peons arrived . . . It was pleasing to hear that they had crossed the Cordillera without any accident. The eldest child, who was a very fine boy, had ridden the whole way, but the other little chubby-faced creatures had each been carried upon a pillow in front of the peons' saddles . . . The fine little boy was the child that was born at Villa Vicencia."⁵⁰

The adventure in copper had not been a success, as we shall see later.⁵¹ Now Miers was setting up the machinery for a mint in Buenos Ayres after which he would return to England completely disgusted with South America.

The indomitable Mrs. Miers! Her brave ghost stood at my elbow for a brief moment one quiet summer afternoon in the Grosvenor Library as I opened a copy of Beaumont (*Travels in Buenos Ayres*, London, 1827) and saw her name inscribed on the flyleaf: "To Mrs. Miers—with the author's compliments."

Uspallata, where Head met Mrs. Miers, was the next post after Villavicencio. It was a good day's travel, forty miles or so, across the Paramillo, a narrow mountain range which separated the great western plain from the valley in which Uspallata was situated. The post itself, "merely a rancheria, consisting of low adobe houses, built round a courtyard," owed its existence to the springs that welled up in the immediate vicinity. Not far away, too, were mines of lead and silver almost deserted in the twenties.

From Uspallata the road wound south across an incredibly dry waste covered with the mummified corpses of mules and cattle. Then, almost directly west of Mendoza, the route turned westward into the Andes toward Chile. Following the Río Mendoza, a gradual ascent toward the watershed was possible, although this involved the rather ticklish negotiation of several *laderas*, narrow paths along the side of the gorge where there was a terrifying drop to the river below. Higher and higher went the trail, across a great natural bridge (Bridge of the Incas) to the foot of the Cumbre, a gigantic ridge forming the height of the pass.

On either side of the Cumbre, a league or a league and a half apart, were several tiny brick snow-houses (*casuchas*) erected to provide shelter for travelers caught by the frequent snowstorms, which were likely to prevent all movement through the pass for days at a time. Twelve feet square with domed roofs to shed the snow, the *casuchas* stood on a

high podium ascended by a staircase. Since their erection in the late eighteenth century, they had been instrumental in saving many lives.

The track zigzagged up the Cumbre to the top of the pass, more than twelve thousand feet above sea level, and there on the other side was Chile! But "there is no such thing as standing there & looking at an immense country spread out at your feet . . . instead of looking down upon a great range of country, you look up at peaks on all sides, far above you."⁵²

"What thing can be more beautiful?" said Captain Head to one of his Cornish miners as they stood at the top of the Cumbre.

"Them things, sir, that do wear caps and aprons," was the smiling reply of a man who had been too long on the trail.⁵³

Now the way was downward; in some places it was too steep to ride. Down past the Lake of the Inca, along the icy little brook called the Juncal, along the Río Blanco, and down to a zone where vegetation grew again. Then came the *guardia*—the customs house—and, at last, the Santa Rosa valley where "one looks down upon the beautiful green grass dotted with cattle, upon vineyards & trees & little irrigating ditches, cutting it in every direction; in contrast to the barren country passed since leaving Mendoza, one is reminded of the lands, in the Bible, flowing with milk & honey."⁵⁴

The end of the journey was at hand; one day more to Santiago, or two days perhaps to Valparaiso.

CHAPTER IV

The Conquest of the River Plate 1853-1870

"What have we to apprehend from those Europeans, who are not equal to one night's gallop?"

—*General Mansilla*¹

EXCEPT in the political sense, the colonial period in the Rio de la Plata was not terminated when independence from Spain was achieved at the beginning of the nineteenth century. Social and economic life continued in the colonial pattern until the early fifties when three important developments, the exile of Rosas, the opening of navigation on the Parana to the vessels of all nations, and the establishment of the Argentine Confederation, brought a deluge of European immigrants and foreign capital to Argentina and Uruguay. Within two decades "those Europeans" and their investments had so transformed the cultural climate of the pampas that General Mansilla and his gaucho confreres had begun to enjoy a certain kinship with the celebrated megatherium and other Argentine fossils.

The new era was first evident on the north shore of the Plate. In Uruguay, the scene of savage battles between Spaniards, Portuguese, Brazilians, Porteños, and local patriots, an independent nation was established with British aid in 1828. Although peace and prosperity were often interrupted in the subsequent period by party warfare and neighborly meddling—Brazil supported the *colorados* and Rosas the *blancos*—Montevideo was for many years the principal

Platine port because of the British and French blockade of Buenos Ayres. British and other foreign merchants established themselves in the town, while French and Italians were numerous in the country. The Italian hero Garibaldi won his first military laurels as commander of the Uruguayan fleet in its encounters with the Argentine sea dog, Admiral Brown.

British consular reports from Montevideo were optimistic about the future of Uruguayan trade even while the area was a province of Brazil. The export of five hundred thousand hides during the first nine months of 1822 was typical of the early commerce of Uruguay;² after independence in 1828 tallow and salted beef were added to the export list.³ Imports from Great Britain consisted of the usual cottons and woollens, hardware, and coal, while the United States supplied flour, pork, codfish, candles, soap, and furniture; Spain sent fruit and wine; Brazil, sugar, rice, cassava, coffee, and tobacco.⁴ Irish butter sold for two shillings a pound in Montevideo in 1828; thus, most people continued to use the Uruguayan substitutes for this commodity, marrow and beef suet.⁵

The economy of Uruguay was essentially pastoral, but it was a profitable one for British entrepreneurs. People like Thomas Fair, who had an *estancia* on the Río Negro as early as 1824, and Samuel LaFone, who began by shipping hides to England, soon expanded their activities.⁶ LaFone owned the first English *saladero* (slaughter-house) in Montevideo; he leased a seal fishery and traded with the Falklands; he was perhaps the man who inaugurated steam navigation on the Plate in the twenties, and he set up the first steam flour mill in Uruguay. He was the same Samuel LaFone "of Montevideo and Liverpool" who had interests in Argentine mines.⁷ The Protestant foreigners blessed him for the church he erected at his own expense in Montevideo about 1841; humanitarian to the last, he died nursing the sick in Buenos Ayres during the yellow fever outbreak of 1871.⁸

One of the best descriptions of Montevideo in the fifties is that of C. S. Stewart: "The town is situated on a peninsula of

tufa rock, a half mile in length, by a quarter in width, rising gently from the water on three sides to an elevation of eighty to one hundred feet much in the shape of a tortoise's back. From a distance it presents a mass of compactly built, white, flat-topped houses, one and two stories high, of Spanish aspect with multitudes of small, square turrets or miradors overtopping them, from the midst of which, on the central height, rise the lofty roofs, dome and double towers of a cathedral."⁹

On the east was the Cerro, a hill of four or five hundred feet, crowned by an old fort used as a lighthouse. The streets of the town were badly paved and the sidewalks rough; horse and mule traffic crowded the pedestrians. Gas lighting introduced in the later fifties was temporarily suspended when tallow's grease was substituted as a health measure during the yellow fever epidemic of 1857.¹⁰ Nor had medical knowledge advanced much by 1868 when tar barrels were burnt at street corners to combat the noxious vapors supposedly responsible for the cholera outbreak;¹¹ the people at the Americano Hotel could not do Stevenson's washing, for the police had forbidden the use of soap.¹² Yet Montevideo was proud of its population of 80,000 in the sixties; boastful citizens compared the town to Naples, although Kennedy remarked, "It excels it [Naples] in the matter of vile smells, which is saying a good deal."¹³

Montevideo remained the principal urban center of Uruguay; even today it is the only town in the country where the population exceeds fifty thousand. The rest of Uruguay was devoted to cattle and (after 1840) sheep raising. Colonia, the former haunt of smugglers, contained only three hundred people in 1859—"a broken down old town"; in 1868 its population of one thousand was engaged in the export of wool.¹⁴ Upriver, Paysandú and Salto were growing in size, while Mercedes on the Río Negro became a "Saratoga" to which people went to drink the waters "tinctured with sarsaparilla."¹⁵ Fray Bentos was the site of the Liebig "Extrac-

tum Carnis" factory; this plant, erected about 1864-65 and equipped with machinery imported from Glasgow at a cost of almost \$150,000, employed nearly eight hundred people.

The sparseness of the rural population of Uruguay is indicated by a custom that persisted well into the seventies: "When anyone dies, the body is put into a deal box and placed on some low rocks with a cross over it. After small wild animals and the weather have reduced the corpse to bones, it is put in a smaller box and sent to a Romanist burial ground . . . perhaps fifty miles off."¹⁶

This little note brings to mind the complications attendant upon the obsequies of the *colorado* leader, Flores, after his assassination in 1868. No embalmer could be found in Montevideo, so the services of a taxidermist were enlisted; when *his* arts were employed to no avail, the body was preserved in "spirits" until the funeral.¹⁷ Thus, as Suetonius related of the Roman Emperor Claudius, Flores "did not rise from the table until both stuffed and soaked."

Next to Uruguay, just across the Uruguay River, lay the Argentine province of Entre Ríos. A region strongly resembling Uruguay in its physical appearance and its devotion to a pastoral economy, Entre Ríos was the bailiwick of General Urquiza, the *caudillo* chiefly responsible for the overthrow of Rosas and the man who served in the fifties as the provisional director of the Argentine Confederation. Urquiza continued to rule his own state of Entre Ríos even after Buenos Ayres consented to join with the other provinces and become the capital of the Argentine Republic (1861-62). Mitre and Sarmiento wisely ignored the semi-independent position of Entre Ríos, and it was only after 1870, when Urquiza was assassinated, that Sarmiento dared to intervene in the affairs of the province. During his lifetime, Urquiza encouraged foreign immigration to Entre Ríos; a very prosperous colony of Swiss was founded at San José in 1856, and immigrants from the British Isles began to build up a flourishing sheep-raising industry in the province about the same time.

The *estancia* of Urquiza, not far from Gualaguaychú, was considered a showplace. The property included *several hundred square miles*. On its fine grass were fed seventy thousand sheep, forty thousand head of cattle, and two thousand horses in addition to many mules. Much of the portion of the estate devoted to grazing was occupied by tenants, while Urquiza himself raised wheat and set out fine orchards. "His dwelling is built of stone, and in the massive style of the houses of Buenos Ayres. It is of one story, forms a quadrangle of about eighty feet, and contains eight or ten spacious and lofty rooms: from the roof rose two handsome turrets, commanding extensive views of his estancia."¹⁸

At Concepción, on the Uruguay River about eighteen miles away, Urquiza established a college where young men of the province were educated at public expense. The curriculum included physics, higher mathematics, Greek, Latin, French, philosophy, and music; one of the faculty members was an Englishman who was retained to teach the English language. A visitor to the school in 1853 was particularly impressed by a youthful student who "composed with great facility, played upon sixteen instruments, and yet he had never been out of the province of Entre Rios."¹⁹

Thomas Jefferson Page, captain USN, "a very intelligent, agreeable man,"²⁰ was given command of the little side-wheeler, *Water Witch*, and ordered to the Rio de la Plata in 1853 for the purpose of exploring and surveying the newly opened Parana River and its tributaries. Between 1853 and 1856 Page traveled 3600 miles by water and 4400 miles by land through the Argentine Confederation and Paraguay. His account of his adventures, published in 1859, is one of the best of the nineteenth-century narratives.²¹ Enjoying a large sale in the United States, the book provided our grandfathers with almost the sum total of their information about the Argentine and Paraguay before the spectacular Paraguayan War (1865-70) inspired the writing of new accounts.

Page found new life stirring in the towns along the Parana. Rosario, a village of less than eight hundred in 1812,²² had now become the chief port of the Confederation and a formidable competitor of Buenos Ayres; with a population of four thousand in 1853, Rosario grew to twelve thousand by 1855, and sixty thousand a decade later. Several months before the arrival of Page, MacRae reported that much building was in progress in Rosario, and this refrain was echoed by Peabody in 1859.²³

The success of Rosario was due to the fact that it replaced Buenos Ayres as the terminus for roads from Mendoza, Cordova, and the northwest. In the fifties and sixties travelers sailed up to Rosario and then took to the land routes. A diligence service connected Mendoza and Rosario; the coach left Rosario on the fourth of each month and began the return journey on the nineteenth; the trip cost sixty-five dollars (one way) and passengers were allowed to carry fifty pounds of baggage.²⁴ In 1863 diligences from Rosario made 387 trips to the interior provinces and carried over two thousand passengers, in a single month nearly 350 carts and 850 pack mules left Rosario bound for Mendoza, San Juan, Cordova, and other inland cities.²⁵ The railroad projected in the fifties to connect Cordova and Rosario was finally completed in 1870; by 1865 it had reached Frayle Muerto and Villa Nueva where it aided in the development of a new sheep raising area; when Stevenson traveled to Chile in 1868, he took the train from Rosario to Villa Nueva and then transferred to a diligence.²⁶

Farther up the river, the town of Parana enjoyed an artificial boom induced by its position as the capital of the Argentine Confederation (1852-61): "We could scarcely realize the change in the aspect of the town between 1853 and 1855. . . . When we first visited it, a noiseless inertia seemed to pervade all things; before our departure, the construction, not only of government buildings, but of fine private dwellings, gave it an air and bustle of life quite 'American.' The saw and

hammer were busily plied in every street, and they were preparing for use, not only the hard woods of the country, but American pine."²⁷

American pine was used for doors, sashes, and flooring because the hard and durable woods from Paraguay and north-western Argentina could be employed only for cabinet building or for joists and beams. A cedar that came from these same areas was almost as good as the American pine, but in the fifties it sold at the same price as pine brought all the way from the United States.²⁸ Nevertheless, lumbering was stimulated by the new construction along the Parana, and log rafts were floated down the river to sawmills at Parana and Rosario; in the seventies, when the railroads began to be built north of Cordova, the extremely hard *quebracho* wood of the Chaco began to be cut for ties.

Eventually, the town of Parana lapsed back into its lethargy,²⁹ for it was located on the wrong side of the river to share in the trade which eventually went to its neighbor on the western bank, Santa Fé. The latter town was the one described so graphically by Robertson.³⁰ When he visited it in 1812, it was principally a fortified place for the protection of the countryside against the Indians, a sleepy town where people sat in their doorways in the evenings drinking *maté* and eating watermelons; the ladies smoked large cigars and spit on the floor; and, what was most incongruous to a European, there were *mixed* swimming parties in the river with the men wearing white drawers and the women white robes.

On the left bank of the Parana, about twenty miles below its junction with the Paraguay, stood Corrientes. Corrientes and Goya (farther down the Parana) were the scene of the business triumphs of Robertson about 1815. At that time Corrientes had a population of five or six thousand; it existed on the export of a few hides, some wool, and a little sugar and cotton. Within the town a primitive kind of barter was carried on in which children went from door to door trading salt for candles, or tobacco for bread, or butter for pepper, and

so on.⁸¹ The English, who employed money in their transactions, "ruined this quaint custom." A universal lack of capital handicapped the development of a potentially large cattle industry in this area. Robertson temporarily built up a big business in hides around Goya: in nine months fifty thousand ox hides and a hundred thousand horse hides were collected and sent down river. In this pastoral country the land itself had no value: it was sold on the basis of the number of cattle it supported; the size of the tract of land involved in the exchange did not influence the purchase price, for the amount was calculated in cattle at so much per head.⁸²

In the fifties Corrientes had grown to a population of twelve thousand, but it had not changed much in appearance since Robertson's day. Its streets were laid out regularly in the traditional gridiron pattern, and its adobe houses were like those of a hundred other Argentine towns. The churches looked like barns and their bells "sounded like cracked saucepans."⁸³ Around the town there was cultivation of the sweet potato, maize, manioc, and sugar cane; a few orange groves could be seen in the suburbs. Out in the country, however, the grazing of cattle, sheep, and horses occupied the land; no one cultivated the soil.

The advent of the *Water Witch* upon the Parana was an event, for the coming of steam navigation was to change conditions of transport on the river. From rude *balsas* (double canoes lashed together) and *piraguas* ("troughs with sweeps") to *balandras* (single-masted sailing vessels of one hundred tons' burden) had been nearly the sum total of advancement in the preceding fifty years, although the Italian skippers who swarmed on the Parana in the forties may have had better sailing vessels than the *balandra*. Yet rapid and regular transport on the Parana called for steam, since the upward passage of the river was difficult and slow in a sailing ship. If a *pampero* failed to blow from the south, one had to attach ropes and pulleys to trees on the bank and order the crew to haul the vessel upstream. The situation seemed

so hopeless to Mansfield that he suggested setting up stationary steam engines along the banks to pull ships up the river.³⁴ The real answer to the problem was the steamboat, although as a waterway the shifting, unreliable Parana was never as satisfactory as the Mississippi. By the seventies, when steam navigation was common on the Parana, one could catch a boat daily for Rosario, or every other day for Corrientes; and the trip to the latter town from Buenos Ayres was now a matter of days instead of weeks.

While the opening of the Parana was in itself an event productive of major consequences in Argentine history, the advent of the Europeans and their capital had an equally decisive effect. It was mainly through the efforts of the Europeans that the character of the cattle industry was progressively altered, that sheep raising achieved an importance which it had never before enjoyed in the Argentine, and that eventually agricultural production for export was inaugurated. Along with these developments went the building of railroads, which facilitated the transport of freight and opened up new areas for colonization. After the new national government conducted a series of successful campaigns against the pampas Indians in the seventies, there was a rapid expansion of the frontier to the south.

As we have seen, the Argentine cattle industry in its primitive stage was based upon the export of hides, horns, and jerked beef. Following the rather catch as catch can methods of the eighteenth century, the industry became better organized with the establishment of *saladeros* at Buenos Ayres, Montevideo, and other transportation centers after 1815. A typical *saladero* in Uruguay or Argentina was the one at Montevideo described by Peabody:

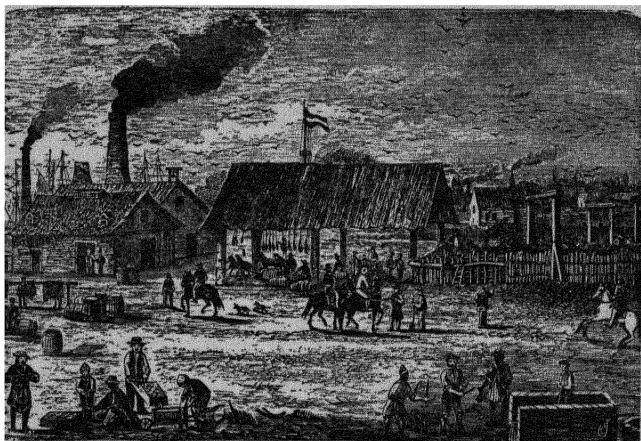
"We reached the *saladero* and found them in full blast. A great many cattle, say several hundred, were shut up in a large enclosure; from this led a lane about 12 ft. broad to another small corral, and still a lane to a third enclosure, which would hold about twenty or thirty oxen: the lanes and

enclosures were opened by hoisting gates. On a raised platform outside the 3rd corral stood a man, the fence about the corral reached above his knees, he held a lasso in his hand and swinging it two or three times over his head, he threw it with unerring accuracy over the head of an ox; the end of the lasso ran thro' a block at the foot of the corral, and was fastened to two horses which at once started off at right angles, dragging the poor ox at full speed, generally on his knees, to the end: there the man, who threw the lasso, stood with a knife, and while the head of the ox was held steady by the horses, against a beam placed across the opening, he leaned over, and with a very easy motion passed the knife in between the horns. There was a slight quiver and all was over . . . There was something frightful in the dispatch; two or three swings of the lasso over the head, a singsong direction to the horses to pull, and down comes the ox to his knees; in three seconds his horns strike the beam, the knife is pushed home, and his head falls, the lasso is slipped off, and the operation is repeated, while he is wheeled away on a rail car, the track of which runs down the center of a covered building, on each side of which the animals are rolled to be skinned."³⁵

The flesh of the slaughtered animals was thrown onto a huge pile four feet high, thirty feet long, and fifteen feet broad on which, at intervals, salt was shoveled. After a day or so, the meat was moved and salted again; then it was hung in the open air and dried. When exported, it went to Brazil and the West Indies. Hides were processed by steeping them in brine after which they were washed and piled in alternate layers of hides and salt; in this state they would keep for a whole year. Hides were dried by stretching them on the ground with the aid of pegs. Thick hides intended for the German and English markets were staked only at the head and tail, but lighter ones for Spain had to be pegged on all sides.³⁶ About 1830 the manufacture of tallow on a large scale was made possible through the introduction of a process

called steaming. In this, the meat was placed in vats and steamed for twelve hours or more; next, the liquid tallow was allowed to flow out into tubs from whence it was conveyed to a cast-iron boiler for the final processing, after which it was put into casks.⁸⁷

In the sixties this early phase of the cattle industry was doomed. Half a dozen processes for preserving meat were under discussion, and the Liebig system was adopted in Uru-



A Saladero

guay about 1865 to make beef extract. Alive to the possibilities of refrigeration, the British were introducing Shorthorn cattle and their own methods of breeding. As Latham predicted in the middle sixties, "Eventually, meat will be more important than hides, tallow, and grease."⁸⁸ Refrigeration in the seventies meant better cattle, and better cattle meant wire fences to control breeding. This also entailed growing feed for the cattle, a new type of agriculture, and a change in the attitude toward land and land ownership.

After it gained momentum, the sheep industry of Argentina matured with greater rapidity than the cattle industry. Al-

though Spanish *churras* had been brought in as early as the sixteenth century, the breed so deteriorated that the wool was hopeless as an export commodity. Early experiments with Merinos in the nineteenth century after 1814 were not successful, but the introduction of Merinos and English South-downs a decade later finally proved its worth in the thirties.³⁹ McCann reported in 1846 that the country within a radius of one hundred and fifty miles south and southeast of Buenos Ayres was one vast sheep-walk presided over by English, Irish, and Scotch shepherds.⁴⁰ After 1852 a great expansion occurred; between 1852 and 1865 the export of wool from Argentina and Uruguay increased sevenfold; in three years (1862-65) the number of sheep in the province of Buenos Ayres tripled.⁴¹

In the fifties and sixties sheep were becoming more important in Entre Ríos and in the province of Cordova; there the prospects were good for the gentleman-adventurer who desired to become a *multi pastor odoris*, as Burton called it.⁴² English sheep farmers were numerous around Gualaguaychú, where for a time it was possible to get as much as three thousand acres of land for the purpose of grazing the sheep. By the sixties, however, the sheepmen were beginning to shift across the Parana to the area beyond Rosario. It was into this region that Seymour and his friend, Frank, went to seek their fortune in 1866.⁴³

In the Frayle Muerto area, Seymour and Frank bought at auction (in Cordova) twenty-four thousand acres at six cents an acre. Miles from the nearest town, in Indian-infested country, the two men and their peons established a modest *estancia*. Seymour bought a prefabricated iron house (which made two rooms, each twelve feet square) at a cost of four hundred dollars in Buenos Ayres. Surrounding the house, corrals, and vegetable garden, it was necessary to dig a ditch six feet deep and six feet wide for protection from the Indians. The point of this seems to have been that Indian horses would balk at such an obstacle, and the Indians would be too lazy

to get off and walk. Another problem was drinking water; a well sunk near the house struck water at thirty feet, but the water was too salty to drink, so another well a mile from the house had to serve the purpose.

The first two years were hard ones. Roving bands of Indians twice carried off the horses and cattle. They did not disturb the sheep: they wanted only horses and cattle which could be driven across the Andes to Chile during October, November, and December when it was possible to cross over the mountains by the southern passes. Sheep proved hard to buy, although two thousand were finally secured at five shillings a head. The flock could be counted on to double in a year's time, and, as expected, at shearing time there were four thousand sheep demanding attention; they were all sheared in five days.

When it was necessary to add outbuildings to the *estancia*, they were built of bricks made on the premises. A well was dug for water and a *pisadera* prepared. The *pisadera*, a spot for brickmaking, was a circle ten yards in diameter, level, and trodden hard by a herd of mares. Topsoil was then stripped from the earth and mixed with water and chopped grass or straw; the resultant mud was carried to the *pisadera* in barrows and upset on a hide. Here the *cortador* (brick-maker) went to work with a wooden mould that made two bricks at a time. "He raises the mud up in his arms, having clasped his hands together, and drops it into the mould; he then dips his hand into a bucket of water close by, and smooths over the surface, removing at the same time the superfluous clay, which he puts down close by, ready for the next pair of bricks; the mould is then raised by two handles on the outside, and wiped over with a wet rag before being used again, so as to prevent the mud sticking to it; he pulls the hide after him as he moves along, placing the bricks in rows from twenty to thirty pairs in length, on the flat space prepared for them."⁴⁴

Foundation courses for walls might be made in a *tapia*, a

large wooden frame open at the top and bottom. When set up, the frame gave a mould two yards long and three feet high. Mud was laid down in the frame three or four inches deep at a time and pounded with a wooden mallet. The same method was employed in making the mud fences of Mendoza described in the preceding chapter.

Life on a sheep ranch was lonely and hard. The hot summer months were difficult because "in December, January, and part of February, everything sleeps in the middle of the day. Cattle and horses stand perfectly still. The sheep stand, with their heads hung down, in circles of fifty or sixty, and turned to a centre, towards each other. Nothing seems to move but the great legatoes, or lizards . . ." ⁴⁵

Then there was the monotonous diet of fresh-killed meat (usually mutton), biscuits, and potatoes washed down with water and *maté*. Indian raids, snakes, toads in the boots in the morning, frogs in the well, and the odoriferous *zorillo* (the skunk of the pampas) added variety to a long list of annoyances, large and small. Even visitors could be a nuisance, especially kinsfolk from England who expected to be entertained when there was so much work to be done.

Today maize, wheat, and alfalfa are grown where Seymour and Frank once grazed their sheep, for after 1880 the sheep frontier began to move southward into Patagonia as an advancing agricultural frontier raised land prices on the so-called "humid pampas." As early as 1868 experiments in agriculture around Frayle Muerto were being made by a venturesome Scotchman named Bell, who introduced a steam plow (the first in Argentina) with which he proposed to break the fertile pampas sod.⁴⁶ This was a radical departure from traditional Argentine methods, since the old wooden ox-drawn plow, standard since the conquest, barely tickled the earth. The antique Spanish implement was well suited to regions where the soil was light and rocky, but it was inadequate for turning thick grass-covered sod. We are not told what the natives thought of Bell's steam plow, although we can be

fairly certain it was hard to convince them that the older methods of farming were capable of improvement. One remembers that up the Parana near Corrientes, Page found a Frenchman using a "modern" (steel) plow; the reaction of the Frenchman's neighbors was: "What a plough! Ha! ha! ha! that fool of a Frenchman! He's crazy, sir! Why, sir, he is opening the ground as wide as the streets of the capital!"⁴⁷

Fortunately, the men who played the most important part in shaping the destiny of the young Argentine nation had a breadth of vision that enabled them to see, if most of their countrymen did not, what needed to be done in Argentina. Both Juan Bautista Alberdi, who patterned the constitution of 1853 after that of the United States, and Domingo F. Sarmiento, the second president of the republic (1868-74), understood the necessity for encouraging European immigration and the importance of bringing European (and North American) science and technology to the Argentine. Both greatly admired the United States, and both felt that all their people should learn English.

With such encouragement from Alberdi, Sarmiento, and other enlightened Argentine statesmen, the immigrants came, and with them their technology. In the fifties steamship service was inaugurated which connected the Plate with Southampton and Liverpool; steam packets made regular runs between Montevideo and Buenos Ayres; the *Water Witch* was only the first of many little steamers to ply the Parana. Following the establishment of the first short railroad at Buenos Ayres in 1857, other lines were projected and built. Argentina had over three hundred miles of railroad by 1866; four of the six lines originated in Buenos Ayres, while the fifth was operating in Entre Ríos, and the sixth was the not quite completed Rosario-Cordova line. People were already talking about a railroad over the Andes to Chile.

On the pampas the building of railroads was easy; grading and tunnels were unnecessary, and long bridges were seldom

called for: an iron bridge thirteen hundred feet long spanning the Río Segundo was an object of great admiration. The major obstacles to railroad building were those provided by the creatures of the pampas who could not adjust themselves to changes in their established ways of life. The cattle of Buenos Ayres took to sleeping on the tracks; several thousand dollars' worth of prize Durhams were neatly ground to hamburger in a single accident.⁴⁸ The cattle breeders of Cordova were so hostile to the railroad at first that they used to fell trees across the track;⁴⁹ on this same Rosario-Cordova line, the ostriches hampered the construction gangs by swallowing the bolts intended for joining the rails, the Indians tried to lasso the engines, and the trouble that locusts might cause has already been mentioned.⁵⁰

On the line that ran westward from Rosario toward Mendoza, strange things happened: "It was not uncommon, when this line was in construction, for the contractors to run ballast-trains by wind instead of steam, each trolley having a sail, and the train presenting the appearance of a flotilla, careering along at 20 miles an hour. Such power has the wind in these pampas that it is necessary to make fast the train at the station where it passes the night: it happened to one station-master that on looking for his train next morning it was many miles away to leeward."⁵¹

With the steamship and the railroad came improved means of communication. In 1866 a cable was laid between Buenos Ayres and Montevideo. Telegraph service began to unite the principal Argentine towns in the sixties, while the Trans-Andine telegraph to Chile was completed in 1872. Nine years later the telephone arrived in Buenos Ayres.⁵²

In the cities, especially in Buenos Ayres and Montevideo, the colonial era had ended. The culture of these great urban centers was complex, cosmopolitan, and almost as "modern" as the culture of New York or London or Paris in this same period. But what was "modern" three quarters of a century ago? For an answer to this question we shall consult a most

authoritative source, the advertisements appearing in the 1875 edition of Mulhall's *Handbook of the River Plate*.⁵³

Among the advertisers in the *Handbook* are ten banks (Argentine, Brazilian, British, Italian, and German), several insurance companies, and the Argentine National Telegraph; the latter in 1875 was operating about sixty stations throughout Argentina, and messages might be sent at the rate of twenty-five cents for ten words. T. A. Fund & Company sold sewing machines; they listed Singers, Howes, the Little Wanzler, Wheeler and Wilson, and other makes. Diego Thompson had iron houses (probably like the one purchased by Seymour); V. L. & E. Casares handled coal, fence wire, fence posts, mowing machines, steel plows, American carts and carriages, and six different kinds of corn shellers. North American furniture was sold by Bailey and Gomes. John Findlay & Company had "a magnificent selection" of machinery, tools, and steam-fittings; Felipe Schwarz advertised engines and boilers, printing presses, flour mills, waterwheels, sheepshears, and fire engines. C. H. Smith, the South American agent for George Bower, sought new fields to conquer after having installed the equipment for the Buenos Ayres Mutual Gas and the Argentine Gas Company. No *estanciero* could afford to be without La Bonaerense, "a machine for raising water from any depth—with the aid of a boy and a horse large quantities of water can be raised in a short time." La Bonaerense would "last for years," and the motive power could be "attached to either end." "WIND IS CHEAP!" proclaimed an advertiser for windmills.

Then there was "The Family Grocery Store" and "The Farmer's Friend." The latter, operated in Chivilcoy and Mercedes by Torroba Brothers, had been "established in these camp towns for the sale of every article at city prices." From J. Defries & Sons, London, one might order a gilt dinner service of 102 pieces for "£ 3. 10 s." Defries had singing bird boxes as well as FOUNTAINS! FOUNTAINS! FOUNTAINS! for the dining room, bedroom, and elsewhere.

Who could enjoy good health without the household medicines of Savoy and Morris, chemists to the Khedive of Egypt? They could send you Etherodyne, "an elegant substitute for Chlorodyne," or Dr. Jenner's Absorbent Lozenges, which were "eminently serviceable in relieving that form of Heartburn so common with ladies during pregnancy." Hesperidina was "the best tonic for convalescents" and valuable as "an appetizer, stomachic, and invigorator." And what about that "great purifier of the blood," Bristol's Sarsaparilla, made from genuine Honduras sarsaparilla? One might also take Brandy Bitters, "an excellent remedy in all Diseases of the Stomach arising from Debility, as Nausea, Flatulency, Indigestion, Spasm, Heartburn . . . and Lowness of Spirits." It is hoped that the confused seeker after *remedios* did not order by mistake and employ internally Mockford's Sheep Wash or Licor Dermatosico, the Celebrated Sheep Dip, also advertised in these pages. To be on the safe side, it was perhaps better to resort to The Old English Drug-Store (established 1828) or to E. E. Cranwell who handled "the best classes of Drugs and Patent Medicines" as well as bath sponges and perfumery.

Trouble with your teeth meant a trip to a *dentista Norte Americano*. There was Dr. Newland, "Graduate Pennsylvania College, 1865," or Dr. D. B. Webster, "gold fillings a specialty," or Kimball and Small. Undoubtedly superior to all, however, were:

RODOLFO NEWBERRY, BROTHERS

AMERICAN DENTISTS

(formerly of Montevideo)

associated with Don TOMAS COQUET,

108 CALLE MAIPU

We have received an immense quantity of the most beautifully-carved Artificial Teeth, comprising thousands of different shades and forms, from which, with our long practical experience, we can match any style or feature, complexion or expression, with such artistic niceness that detection is impossible.

The Plate we use for the atmospheric pressure is the Whale-

bone Rubber, the lightest and strongest known. We have been using Nitrous Oxide Gas for the Painless Extraction of Teeth for nearly fourteen years, and have administered it over

20,000 TIMES

2140 times, in this city alone, since August 1872, and recommend it as the safest anesthetic known. It is nothing new; as it has been tested by thousands of Dentists and hundreds of thousands of people.

Persons from the Camp and neighboring Towns can have their Sets of Teeth made in time to return the same day, by making an appointment beforehand.

RODOLFO NEWBERRY, BROTHERS, 108, CALLE MAIPU

For those seeking culture, there was always Wm. Martin, Professor of Languages and Drawing, or one might visit the store of G. Behrens in Montevideo, just across the Plate, where books and music were sold. Behrens had methods, exercises, and fantasias "of all classes for piano, violin, flute, harmonium, etc., etc.," and a complete line of operas for voice, piano, violin, and flute. The temporarily unemployed might do well to heed the cry of Alfredo Jonas, who wanted twenty men or women at the First Argentine Boot and Shoe Factory "to work boots and shoes on sewing machines moved by steam power."

Persons newly arrived in Buenos Ayres might care to enlist the aid of MacLean and Company, "ship agents, customs house brokers, agents American Express Company." Mulhall himself suggested that the MacLeans would be most helpful in clearing doubtful items through the customs. Then one could relax at the Hotel de Provence (established 25 years), "good cuisine, night porter, English spoken, and apartments for families" as well as "Banquets for Balls, Suppers, Picnics, Soirées, etc., supplied in the most *recherché* style."

For news one naturally read the *Standard* (Mulhall's paper), established in 1861. It was published every morning, and a subscription cost \$30 a year (reduced to \$1.25 a month in 1885).

One of the wonders of Buenos Ayres not listed in the *Handbook* was an establishment of great novelty mentioned by Hutchinson: "The first thing which attracts my attention as I drive along is an institution labelled 'Lavadero del Pobre Diablo,' or the 'Poor Devil's Washing-house,' owned, as I am told, by a man who has made his fortune in washing by machinery the clothes of every poor devil who has money enough to pay for them."⁵⁴

Seriously, while the *Handbook* (both in the sections intentionally designed to give information about the Plate and in the remainder from which we have gained much by indirection) is a valuable source, one should also consult the fine, detailed reports compiled in the sixties by the Belgian consul general, DeRote. Space will not permit a full discussion of this material, but a few points of interest may be noted.

In addition to giving a full description of the current needs of the Argentine importer (specific types of cloth, thread, hardware, machinery, and so on) and a report on the foreign trade of Argentina, DeRote also lists the principal mercantile houses of Buenos Ayres: twenty-six British, sixteen German, twelve French, six North American, four Italian, and others run by natives and assorted nationalities.⁵⁵ He notes that J. B. Coffin and Son are importing agricultural machinery from the United States; some of this machinery is already in use out around Chivilcoy where foreign agriculturalists are concentrated, and DeRote ventures to predict that, with the extension of the Argentine railway system, there will be a growth of agriculture which will generate an increasing demand for modern machinery.⁵⁶

Finally, there is a most interesting passage in which he notes the manner in which North American "coal oil" is sweeping the Argentine market:

"In [my] report on the products and industries of the country, I spoke of the animal oils which are obtained from the *saladeros*. These oils, employed economically, in spite of their

bad quality, in adjustable lamps, are being replaced gradually by mineral oil, which arrives in quantity from the United States, with low-priced lamps, simpler and larger than the native ones.

"The clear mineral oil, which is sold wholesale in tin cans at a price of 160 pesos for five gallons, gives a beautiful and abundant white light; in burning, there is a slight odor—which is hardly noticeable in open rooms. The use of mineral oil has occasioned no accident, and everyone is adopting it, because it is cheap; and they sell in all the stores, for five or six francs, elegant little lamps, with reservoirs of glass or crystal, designed for use with this oil which is called *kéro-sène*." ⁵⁷

In the provinces west of the Parana, the awakening was delayed. That changes had occurred, however, may be seen by a comparison of conditions in 1870 with those of a half century before.

The city of Cordova, with over thirty-four thousand people in 1869, had more than doubled its population in fifty years. Surrounded by hills, Cordova was known in the twenties as the "prettiest city in South America."⁵⁸ Travelers always remembered its good streets and fine houses and its unusual *alameda*. The *alameda* went round a small artificial lake, in the center of which was an island used for picnics; poplars shaded the walk, and a band played on the esplanade every afternoon from four o'clock until dark.⁵⁹

"Cordova is a neat and respectable town . . . The inhabitants are kind and friendly to strangers: the climate is fine, and the general state of the atmosphere dry . . . the market is well supplied with provisions, and living is altogether reasonable."⁶⁰

In the fifties and sixties Cordova was increasingly important as a depot for goods in transit from the northwestern provinces to Rosario; enterprising citizens ordered Conestoga wagons from Boston in the middle fifties.⁶¹ Cattle destined

for Chilean markets were exported to Mendoza and San Juan, and Cordova also shipped mules to Bolivia. In 1869 the town had three daily newspapers, a hospital, a steam flour mill, and a large tannery.⁶² This was also the place where Thomas Jefferson Page was fined two dollars for speeding.⁶³

Santiago del Estero, once known for its fine ponchos, woollens, saddle cloths, and its handsome wooden bowls and dishes,⁶⁴ "presented an aspect of decay" in the fifties: "Deserted, dilapidated houses and silent streets only offered the pleasant enlivenment of business with the periodical arrival or departure of troops. The public buildings are a government-house and three churches."⁶⁵

Worse yet, there was no improvement in the next thirty years. The population of the city remained almost stationary, and the surrounding lands, though fertile, were practically unexploited. "Most of the work is done by the women, who till the fields, make ponchos, and look after domestic affairs, while a considerable proportion of the men lie on the ground, smoking tobacco or drinking chicha. The people are almost pure Indians—except a few whites or Mestizoes in the city."⁶⁶

Part of their misfortunes the people of Santiago could blame on the regime of a *caudillo* named Felipe Ibarra, a contemporary of Rosas. In the fifties, although Ibarra was dead, Santiago had not recovered from the effects of his savage rule. In the meantime trade routes had changed: the commerce and passenger traffic between Cordova and Tucumán, which had once passed through Santiago, now proceeded in a more direct line. This isolation was accentuated by the building of the railroad up from Cordova to Tucumán in the seventies, for the road did not pass within a hundred miles of Santiago.

The people of Santiago well appreciated their need for an easy outlet in the direction of the Parana. For a time they hoped that the Río Salado might be developed as a freight highway. Great encouragement was derived from the report

of Page, who explored the Salado in a small skiff in 1855 and pronounced the river suitable for steam navigation. It was later discovered, however, that the channel would require dredging operations in several sections before regular travel upon the river could be instituted. In 1867 one steamer did actually ascend the Salado for a distance of three hundred miles to the town of Matará, the logical port for the Province of Santiago, but nothing further was done. Eventually, in the eighties, Santiago was reached by a railroad, and its isolation was gradually diminished.

On an island of rainfall in the midst of a very dry country,⁶⁷ Tucumán had always been prosperous. It was a center for colonial trade between Upper Peru and the Argentine, and it began the nineteenth century well known for its tobacco, sugar, tanning, and wood-working industry.⁶⁸ With a population of more than seventeen thousand in 1869, Tucumán was the largest city of the northwest. Its sugar industry was then on the verge of a great expansion which was to draw large numbers of workers from the neighboring provinces (especially Santiago).⁶⁹

A change to more modern methods in processing sugar cane was just beginning to be made at Tucumán in 1869. The cane was still transported from the fields to the mills in bullock carts. After the leaves had been stripped off, the cane was passed through powerful rollers worked by an overshot wheel; the syrup flowed down into a trough leading to large vats from which the liquid was eventually piped to the evaporating pans.

"Formerly the resulting mass of sugar was whitened or decolorized by being placed in earthenware jars of a conical shape, having a hole perforated in the bottom, on which was placed a layer of straw. These were filled up to within a few inches of the top, and the remaining space filled up with mud, where the jars were allowed to stand and the treacle to drain off by the perforation in the bottom. This continued for sometimes sixty or eighty days, when the layer of mud was

removed and the sugar found to be quite dry and white, the mud having absorbed that portion of the treacle and coloring matter which did not drain off."⁷⁰

The whole system was costly and slow. The wood burned to provide the heat for the evaporating process was very expensive, and whitening required so much space, apparatus, and capital that profits were small and delayed. Improvements were made, however, by importing English machinery for crushing the sugar and adopting a centrifugal machine (like that used in the West Indies) for the whitening process. Large profits rewarded good management: one of the most progressive manufacturers at Tucumán, a person interviewed by Rickard about 1869, had two hundred and forty acres of cane from which he made 125 tons of sugar, 1600 barrels of rum, and a profit of more than \$25,000.⁷¹

With the exception of the oasis towns of Mendoza and San Juan, where irrigation helped agriculture to flourish, the rest of the country was not prosperous in the late sixties. In the provinces of Catamarca, San Juan, and Cordova, there was a small mining industry which gave employment to less than three thousand persons, including miners and those engaged in the reduction of the ores.⁷² Eleven copper mines and four silver mines were in operation, and there were twenty-eight placer washings (for gold) in the province of San Luis.

As in the case of Santiago noted above, the problem of the west and northwest was largely one of transportation; this was especially true as one went northward from Tucumán toward the Bolivian frontier. The eventual solution was the building of railroads, but in the fifties and sixties the people of Salta, Jujuy, and Oran were hoping to use the Vermejo River, one of the larger tributaries of the Paraguay. The Vermejo was known to be navigable downward from Oran, and the opening of this river, the mouth of which was unfortunately controlled by the unfriendly Paraguayans, would have been of great benefit to the trade of northwestern Argentina and the adjacent Bolivian towns.

The first plans for navigating the Vermejo had been formulated as early as 1824.⁷³ In July 1826 a party under the leadership of Don Pablo Soria was almost ready to leave Oran to accomplish the descent of the river.⁷⁴ Reaching the Paraguay without incident, Soria and his companions were arrested by Francia, the Paraguayan dictator, who kept them imprisoned in the country for several years.

One of the members of Soria's party was a Yorkshireman named Luke Cresser. This enterprising character was a watchmaker who had drifted into the Argentine shortly before 1820. He is the "Crasey" who shared in the early trials and tribulations of Colonel J. Anthony King;⁷⁵ the latter met Cresser at Oran just before the start of the fateful voyage. Cresser was prosperous at the moment, having made a small fortune in tobacco in the northwest. The old comrades laughed together at the recollection of a previous meeting in San Juan, when, in straightened circumstances, they had tried to pick up a few coppers by giving a magic-lantern show. After Cresser's release from Paraguay, Consul Parish at Buenos Ayres obtained from him a map and an account of the trip down the Vermejo.⁷⁶ Cresser stayed in the Argentine; three decades later Mansfield encountered "an old Yorkshireman who went down the Vermejo with Soria."⁷⁷

In 1855 a North American named Hickman, in partnership with American and British merchants at Buenos Ayres, constructed an eighty-foot boat for the descent of the Vermejo from Oran. The boat was loaded with a cargo of hides, wool, chinchilla, and specimens of lead and copper ores. Although Hickman died in the course of the voyage, his companions reached Corrientes safely after a trip of three months.⁷⁸

When Page heard of the Hickman venture, he predicted that "the time is only postponed when steamers will enter Corrientes, Rosario, and Buenos Ayres, freighted with the products of the North and West,"⁷⁹ but, although nearly a dozen similar voyages on the Vermejo (one by Page himself in 1871) were made during the next twenty years, the idea

of navigating the Vermejo was finally abandoned because the course of the river was so tortuous.⁸⁰

Throughout Argentina as a whole, however, there was a great advance in wealth and prosperity in the period from 1853 to 1870. This advance was made possible by enlightened Argentine statesmanship, European and North American technology, European immigration, and the investment of British capital. For the British especially, as well as for the Argentines, things were turning out very well. British investments in wool, cattle, railroads, shipping, and banking were paying nice dividends, and the sons of John Bull had their lion's share of Argentine foreign trade. Where the attempted conquest of the Plate by force of arms had failed in 1806, the economic conquest of a half century later was a great success. Sir Walter Scott would have rejoiced to learn that times had changed since he wrote of Whitelocke's fiasco:

"The immense plains surrounding Buenos Ayres, are peopled by a sort of Christian savages called *guachos* [*sic!*], whose principal furniture is the skulls of dead horses, whose only food is raw beef and water, whose sole employment is to catch wild cattle . . . and whose chief amusement is to ride wild horses to death . . . Unfortunately, they were found to prefer their national independence to [our] cottons and muslins."⁸¹

CHAPTER V

The Closed Door

"In the land of the blind, the one-eyed man is king."

—*Spanish proverb*¹

FROM the revolutionary years until the middle of the nineteenth century, Paraguay was virtually inaccessible to foreigners. The Paraguayans had declared their independence from Spain in 1811, and they had also resisted successfully an attempt to incorporate their territory into the United Provinces of the Rio de la Plata. Between 1814 and 1840 Paraguay was ruled by the iron hand of the dictator, José Gaspar Rodríguez Francia, isolationist par excellence, who made effective during the last two decades of his reign a policy of complete non-intercourse with other states. Carlos Antonio Lopez, the dictator (1844–62) who succeeded Francia, inclined toward a more liberal policy during the fifties, since he wanted to take advantage of the technical knowledge which British and North Americans might bring to Paraguay, and he also thought that expanded commercial relations with other countries would be profitable. In the end, however, Lopez came to resent the interference of foreigners in Paraguayan affairs; thus, during his last years, he went back to the traditional isolationism of Francia. Francisco Solano Lopez, the son of Carlos, who ruled from 1862 to 1870, is well known as the author of the sanguinary Paraguayan War (1865–70), which involved the country in a conflict with Argentina, Brazil, and Uruguay and resulted in the destruction and political collapse of Paraguay, a catas-

trophe from which the nation did not recover for many decades.

That dictatorships flourished in Paraguay is not surprising. There were few Creoles and not many *mestizos* in the country; the bulk of the population was Indian; Guaraní, the native language, was more widely spoken than Spanish even after three centuries of Spanish rule. Illiteracy was almost universal, and the habit of obedience to authority had been thoroughly inculcated in the people as a result of long exposure to the crushing dominance of the Hispanic church-state. A man like Francia—who could read and write, who had legal training, and who had a strong personality—could easily establish a dictatorship and set a pattern that could be followed by men of lesser ability, the Lopez family.

Not only did conditions within the country favor dictatorship, but also Francia and his successors were fortunate in the remoteness of Paraguay and in its mineral poverty. Paraguay had little except its *maté* monopoly to excite the cupidity of its neighbors, while the British, French, and others had no consuming interest in a country which lacked resources that might yield a large and immediate profit. True, Paraguayan control of the Vermejo and Paraguay rivers retarded the development of northwestern Argentina and south-central Brazil, but few people regarded this as a serious matter in the first half of the nineteenth century. Rosas, the Argentine tyrant, actually played into the hands of Francia when he closed the Parana to international navigation, since the severance of this connecting link with the outside world helped to keep foreigners from pressing for an entrance into Paraguay. It was not accidental that the liberal policy of Carlos Antonio Lopez coincided in time with the opening of the Parana after the fall of Rosas in 1852.

People in the outside world were naturally curious about Paraguay and the mystery that appeared to lie behind the iron curtain of Francia, but before the fifties the reading public in Europe and the United States had to content itself with the Robertson letters, the little book of Rengger and

Longchamps, and the opinions of Woodbine Parish. J. P. Robertson had gone up to Paraguay in 1812; his brother, William, joined him there in the following year, but both Robertsons left the country in 1814 after Francia came into power. Their *Letters on Paraguay* were not published until 1838.² Rengger and Longchamps wandered into Paraguay in 1819 and were detained there by Francia until 1825; their account, by no means thorough, was published in 1827.³ Woodbine Parish represented Great Britain at Buenos Ayres from 1823 to 1831. His many contacts in the Argentine afforded him considerable information about the state of affairs in Paraguay; he had the opportunity of interviewing Cresser and others after their release by Francia, and he also had a good collection of maps and documents relating to Paraguay.⁴

Until the rise of Francia, Paraguay had held an important place in the trade of the Rio de la Plata. It had exported annually eight million pounds of *maté*,⁵ a million pounds of tobacco, much timber, and quantities of sugar and cotton.⁶ "It employed 120 vessels of from 20 to 130 tons burthen, besides sending annually a great number of rafters and flat-bottomed craft, constructed for the conveyance of their lumber and produce down the river.

"From the year 1812, the time that Francia . . . came into power, the trade to that province began to suffer partial interruptions . . . in 1821, Francia finally closed all communication."⁷

The Robertsons, with their customary luck, arrived in Paraguay at a time when profits were still to be had—and left before suffering any losses. The only town of any consequence in the country was Asunción, the capital. Describing the approaches to the city, J. P. Robertson says: "Presently, we were shut out from the open country, and wended our way through a road, embanked on either side to the height of twelve feet. It was over-arched by the wood which met and twined its branches on one and the other bank of the cool and shaded pathway. Down from the innumerable

springs in the banks on each side of the road gurgled the limpid water . . . All the approaches to Assumption are of this kind. They were originally made with a view to defence against the frequent and hostile inroads of the Indians. All danger from these inroads having now subsided, the approaches to the city serve only as the cool and grateful passages by which travellers enter it, or the rural inhabitants carry their loads of vegetables, fruits, and meat for the supply of the capital."⁸

Asunción made a "poor appearance owing to the absence of lofty buildings."⁹ It would not "rank with a fifth-rate town in England."¹⁰ The shops were small, most of the houses were mere huts, and even the public buildings, the cathedral and *cabildo*, were unimpressive. The one thoroughfare that could be dignified with the title of street was unpaved.¹¹ At the beginning of Francia's regime the population of Asunción was about ten thousand.

The chief point of interest in Asunción was the market which was held in the plaza: "In, at every entrance from the country to the square, poured hundreds of females, dressed, without an exception, in white cotton. Some carried jars of honey on their heads, some, bundles of the yucca-root, and some, of raw cotton. Others were laden with candles, sweet cakes, flowers, jars of spirits, pies and pastry, hot and cold, onions, red pepper, garlic, and Indian corn. Some had canisters of salt on their heads, and others large rolls of tobacco and bundles of cigars. Here was one driving an ass with panniers filled with poultry and eggs; and there another, bringing, by the same means, musk and water-melons, figs and oranges, for sale.

"Many were laden with the sugar-cane, stripped of its outer rind and cut into short pieces, ready for suction. Then came the butchers carts, with indifferent beef, badly killed, hung up in pieces in the straw-thatched waggon, without any deference to cleanliness, and cut up with a total disregard of anatomical precision."¹²

The Robertsons had many interesting friends in Asunción. Among them was Doña Juana, a sprightly old girl of eighty-four, who fell madly in love with J. P. R. and took guitar and singing lessons with the object of winning his affection and his hand in marriage.¹³ Then there was Dr. Vargas, of Mendoza and Cordova, whose wife "had a large natural bustle." The good doctor must have been a picture in his court dress: "That was a light-yellow coat, with large mother-of-pearl buttons; green satin breeches with gold knee-buckles, and white silk stockings; an embroidered waistcoat, a cocked hat, a bag-wig, and a very ancient rapier. His sumptuous head of hair was highly powdered and pomatomed; and a quantity of cravat and shirt-frill, which would look truly monstrous in these days, obtruded itself upon observation, as demanding deference from all beholders."¹⁴

Acquaintance with Francia himself was less desirable, but unavoidable. As J. P. R. first saw him:

"I . . . beheld a gentleman of about fifty years of age, dressed in a suit of black, with a large scarlet capote, or cloak, thrown over his shoulders. He had a mâté-cup in one hand, a cigar in the other . . . The stranger's countenance was dark, and his black eyes were very penetrating, while his jet hair, combed back from a bold forehead, and hanging in natural ringlets over his shoulders, gave him a dignified and striking air. He wore on his shoes large golden buckles, and at the knees of his breeches the same."¹⁵

Francia was fond of displaying his library, something unique in Paraguay. It contained perhaps three hundred volumes: law books, "a few on the inductive sciences," some Latin, some French, Euclid's *Elements*, and a few works on elementary algebra; the authors represented included Voltaire, Rousseau, Volney, Raynal, Rollin, and La Place.¹⁶ He had "some mathematical instruments, globes, and maps," and he ordered from the Robertsons a telescope, an air-pump, and an electrifying machine.¹⁷

Francia's literacy was terrifying enough to the simple

Paraguayans, but his possession of the instruments of science made him even more to be feared. His astronomical studies marked him in their minds as a magician, and they fled in horror when he began to survey the streets with a theodolite. It is a commonplace that for years after his death, the superstitious natives were apprehensive that *El Supremo* might return.

A *cause célèbre* which aroused the civilized world during the sojourn of Rengger and Longchamps in Paraguay was Francia's seizure of the naturalist Bonpland, the former companion of Baron von Humboldt. Bonpland had come to the Platine area, where he had settled down to study nature and raise a large family. Unfortunately, he began to experiment with the cultivation of *maté* in the province of Entre Ríos. This was a potential danger to the *maté* monopoly of Paraguay; suddenly, the long arm of Francia reached out into Argentine territory and M. Bonpland was whisked away to captivity in Paraguay (1821). In vain Parish and Grandsire, a special French agent, tried to secure Bonpland's release.¹⁸ Francia finally let him go about 1830, and Page found the old Frenchman living in Corrientes in 1855 "at the ripe old age of 82, actively engaged in agricultural pursuits . . . with a Spanish American wife, and a large family of children."¹⁹

It was many years after the visit of the Robertsons and Rengger and Longchamps before Paraguay was again visible to the eyes of the world. When the curtain was lifted in the fifties, the chair of Francia was occupied by the ponderous Carlos Antonio Lopez who reminded Mansfield of George IV²⁰ and on all official occasions received foreign emissaries "seated and with his hat on."²¹ Page thought him intelligent and well read as well as an "accomplished, but unscrupulous, diplomatist."²²

At this time Lopez had fallen under the spell of that arch-promoter, Edward A. Hopkins, who had great plans for Paraguay. In 1852 Hopkins acquired an appointment as United

States consul at Asunción and a concession from Lopez to establish the United States and Paraguay Navigation Company (backed by Rhode Island capital). In addition to building up trade, Hopkins was to establish a sawmill and put the tobacco industry on a more businesslike basis. In 1853 the company sent out to Asunción a steamer from the United States which carried numerous skilled workmen and a quantity of machinery. Hopkins and his associates were very active in the months that followed. They set up their steam sawmill and their brickmaking machinery; some of their cigars were actually exported to the United States. In 1854, however, Hopkins and the dictator fell out; Hopkins was repudiated as consul, and he and his associates were forced to leave Paraguay. The resentment of Lopez extended to all North Americans; it was not long afterward that the *Water Witch* was shelled by the guns of Fort Itapiru (February 1855).²³

The expulsion of the North Americans did not bar other foreigners from Paraguay. The military arsenal at Asunción was long under the management of William Whitehead, who arrived in 1855.²⁴ G. F. Masterman entered the Paraguayan service as chief military apothecary in 1861.²⁵ One of the most complete descriptions of the country is that of the Belgian, A. M. Du Graty, who visited the country shortly before the death of the senior Lopez.²⁶

In the fifties and early sixties *maté* was still the principal export of the country; it constituted a state monopoly which was responsible for as much as two thirds of the governmental revenues. The *yerbales*, the center of production, lay about one hundred miles north of Asunción. The *yerba*, a shrub resembling holly, grew ordinarily to a height of about twelve feet. The *yerba* gatherers would cut down these bushes and scorch them in a flame. The leaves and twigs were then conveyed to a place where frames holding rawhide nets had been erected; here, they were roasted for about two days. The next step was to grind the *maté* into a powder and pack it in raw-

hide bales containing two hundred pounds each. Then, it was ready for shipment.²⁷

Other products of Paraguay were sugar, manioc, maize, rice, and cotton. Tobacco and wood were significant exports, and there was a tanning industry. Manufacturing was confined to brick, tiles, pottery, and woolen and cotton cloth. An iron foundry, dating from 1854, constituted one of the largest establishments in the country; it employed about one hundred persons.²⁸

Steam had ceased to be a novelty in Paraguay. By 1862 there were at least fifteen steamboats on the river, Hopkins' steam sawmill was still in operation, and a railroad was in the process of construction from Asunción to Villa Rica (about one hundred miles away). In his report for 1861 Bamberger, the United States consul, noted the first trial run of a locomotive on the new road; he remarked that it was a novel sight for most Paraguayans, since many of them (including President Lopez) had never seen a locomotive in operation before.²⁹ The chief engineer on the railroad project was a man named Padisson, who had three British assistants. The ties for the road were made from native *quebracho*, but the rails were imported from North America.³⁰

By the time the Paraguayan War began, the Paraguayans were much more sophisticated. They used torpedoes (made by European engineers) against the allied fleet, and they had portable field telegraph sets.³¹ Then, too, they took to cutting up the books in the public library for use in torpedo and squib cases. "I saw them one day sewing thus a folio Hebrew Bible with an interleaved Latin translation—a most South American mode of diffusing useful knowledge."³²

On the other side, however, the up-to-date Brazilians displayed their modernity in the use of observation balloons. The first of the Brazilian balloons, in which a Frenchman was to have ascended, caught fire and burned.³³ Later, balloons and balloonists were imported from the United States, but they were not as useful as the Brazilians had hoped be-

cause it was difficult to make the hydrogen with which to inflate them.³⁴

During the war years, and especially in the ghastly post-war period when Paraguay lay prostrate, many people must have wondered whether Francia's policy of non-intercourse with foreigners might not have been the best for Paraguay. The modernization encouraged by the senior Lopez had brought much trouble, and to be educated in Paris had not helped the younger Lopez—it had only exaggerated his Napoleonic tendencies. Perhaps Paraguay was better off in that state of innocence in which Page found the upriver towns in 1853, when at San Pedro "the commandante gave us a grand ball at which all the ladies wore shoes,"³⁵ or at Concepción when:

"Being the 'Senor Commandante,' I was expected to select, as a partner, for the waltz, the most distinguished lady present. When all looked alike, it was impossible to discriminate: a mistake would have been a national insult. In this quandary, I placed myself in the hands of the commandante, who dashed off to a formidable row of females at the upper end of the room, from whence he brought forth a partner, assuring me that she danced divinely. This I could not doubt, for what woman in Spanish America can't waltz and waltz well? but she was one of a class so often found in this country, that never tires?

"The music began; off we started, followed by the officers of the Water Witch, and all the belles and beaux of the town. Round and round, whirl and whirl . . . 'Bravo Senor Commandante!' . . . the invariable exclamation of our host as we passed . . . began to sound faintly in my ear; on, we flew; I no longer supported the lady; she carried me round. Was I about to realize the theory of perpetual motion? Sights and sounds were growing dim and confused, when, perhaps aroused by the noisy 'bravo' of the commandante, I gathered my failing strength, broke away from the fair lady, and beat a retreat from the room. I was fairly danced down."³⁶

CHAPTER VI

The Vale of Paradise

"The trade of Chile has, upon the whole, been steady and profitable, and in proportion as the country becomes organized, and the form of government more precisely defined and settled, will indisputably increase."

—*Nugent to Canning, 1825*¹

CHILE would have delighted Theocritus; the idyllic, pastoral character of Chilean life in the colonial period, which continued with little change well into the nineteenth century, had no counterpart in the New World. Travelers found the country itself more congenial and friendly than any other in South America. The interminable pampas, the rank vegetation of the Amazon, and the barren grandeur of the Andes, though tremendously impressive, were hostile and terrifying; they were too big even for giants, but Chile was man-size. Perhaps the soft, bucolic charms of old Chile were heightened by memories of a passage of the Cumbre or a voyage round the Horn. As Darwin said, "After Tierra del Fuego, the climate felt quite delicious—the atmosphere so dry, and the heavens so clear and blue with the sun shining brightly, that all nature seemed sparkling with life."²

Chile was paradise, but the practical-minded often complained that she was more comfortable than prosperous. This was true, for the development of Chilean economic production to a level above that of mere subsistence was not a matter of years, or of decades, but rather of centuries. The remoteness of Chile from Europe and the restrictions on trade and industry imposed by Spanish colonial policy handicapped

any efforts to expand the Chilean economy. The exploitation of Chile's greatest natural resource, copper, was discouraged for over two hundred years because copper could be brought from Hungary cheaper than it could be mined and smelted in Chile. The extraction of silver from Chilean ores was difficult, and only small quantities of gold were obtained from washings in Chilean streams. As far as mineral wealth was concerned, Chile seemed a poor country in comparison with her neighbor, Peru. The slow growth and expansion of the Spanish settlements in Chile is often explained as the result of the opposition provided by the fierce Araucanian Indians in the south, but the truth of the matter is that the colonists had no real incentive to force the issue with the Araucanians.

In the sixteenth century the white population of Chile was very small; even as late as 1630 there were only eight or nine thousand Spaniards in the country, and the total of eighty thousand inhabitants reported for 1700 included a large percentage of *mestizos*. Grazing and agriculture provided the chief support of the early colonists; cattle, sheep, horses, mules, and goats were numerous, and European grains and fruits of many kinds grew extremely well. In addition to sporadic prospecting for gold, there was extraction of silver and copper ores on a small scale in the seventeenth century. Wheat was exported to Peru; in addition, there existed some trans-Andine trade with Mendoza. Slowly, steadily, the population increased as the foundations of Chilean economy were carefully laid by hard-headed farmers and ranchers. More and more Peruvian ships began to come annually to the ports of Coquimbo, Concepción, and Valparaíso. Once Valparaíso had been so insignificant that it had no port authorities, and a *corregidor* used to ride down from Quillota on the rare occasions when a ship entered the bay, but this was no longer the case in the seventeenth century.⁸

The Bourbon period was notable for an acceleration of commercial activity. Frezier (1711-12) found that Concepción was exporting to Peru tallow, lard, dried beef (*charqui*),

and leather, while Valparaiso was shipping northward large quantities of wheat.⁴ Gold and silver mines were in operation around Copiapó. Thirty years later Lord Anson noted the exportation of wheat, wine, jerked beef, cordage, and gold from Chile; the Peruvian ships which fell into his hands were carrying sugar, cloth, tobacco, and cotton as well as silver plate and coins from Callao to Valparaiso. The coins and plate, however, were principally for use in the trade between Peru and the Argentine, in which Chile was only an intermediary. The almost contemporary reports of Juan and Ulloa confirm those of Anson and provide further information. Chilean butter and dried fruits were sent to Peru, while imports from the north included iron, mercury, cacao, hats, pottery, and pickles. Mendoza employed Chilean tallow for soap making; from, or rather through, Mendoza came Paraguayan *maté* and wax as well as Negro slaves from Buenos Ayres. Then, too, a small intradepartmental commerce flourished within Chile; cargo invoices of the little vessels engaged in the coastal trade indicate the shipment of goods which satisfied local needs: ponchos, petacas, wooden stirrups, firewood, dried beef and tongue, cheese, baskets of potatoes, lentils, and canary seed.⁵

An event of great economic significance for Chile was the establishment of a mint at Santiago; this innovation was authorized by the Spanish government in 1749, and the first coins were struck in 1750. It may be assumed from the considerable importation of mercury in the 1740's and from the introduction of the mint itself that the Chileans were mining increasing amounts of gold and silver. The establishment of the mint further stimulated production because henceforth the precious metals need not be sent all the way to Lima to be converted into coin; lower transportation costs made mining more profitable. Between 1750 and 1770 the gold and silver output of Chile doubled, and the resulting increase in the amount of coin in circulation led in turn to a larger volume of trade.

But this was only the beginning, for the last twenty-five years of the eighteenth century saw an even greater quickening in the tempo of Chilean economic life. In 1778 the ports of Valparaíso and Concepción were opened to direct trade with Buenos Ayres and Spain; in addition, the general European wars at the end of the century brought foreign traders to Chile. American and English whalers appeared in the South Pacific, and for some time the English had been anxious to establish a direct trade between the west coast of South America and the Orient.⁶ Finally, when Spanish shipments of copper from the Old World began to fall off late in the century, Chilean copper production rose to new levels; by 1800 there were reputed to be one thousand copper mines and three hundred smelters in operation in northern Chile.⁷ Peru was the chief market for this copper: the Chileans supplied the Peruvians with copper utensils, but large quantities of copper were sent to Peru where it was worked by the Peruvians themselves; we hear of Peruvian cannon and bells fashioned from Chilean copper. It is interesting to see that the balance of trade began to favor Chile after 1780, whereas in the earlier colonial period Peruvian exports to Chile had greatly exceeded imports from that country.⁸

Chilean foreign trade was erratic during the Napoleonic Wars. In 1800 it was reported that the country was almost completely cut off from European markets,⁹ but it was also between 1800 and 1814 that a remarkable commercial intercourse with the Far East became apparent. In 1813 the Chileans were sending wheat, wine, olive oil, copper, hides, and almonds to Manila; it was said that the merchants of Concepción were making a profit of three to four hundred percent on silver bars obtained from Lima and then exported to Manila.¹⁰ Although this Oriental trade was to assume even greater proportions after 1818, the failure of the first revolutionary movement and the subsequent Spanish reoccupation of the country strangled all trade between 1814 and 1817. Samuel Haigh, one of the first of the numerous British traders

who followed San Martín over the Andes, could find little activity in Valparaíso in 1817. Business was very poor. Gone were the old Spanish merchants who had always been able to pay cash for large quantities of goods; in 1817 goods had to be carried on credit for anywhere from two to four months, and even then sales could be made only in small lots. Haigh was further embarrassed to find that the Chileans never purchased by sample. It may be suspected that they had learned this lesson through many a bitter experience.¹¹

This unhappy state of affairs was of short duration. Despite the fact that Chilean independence was not completely assured until after the Battle of Maipú (April 1818), the year that preceded this victory was one of rapid recovery. Judge Bland reported that Chile had been visited during this period by no less than twenty-four North American vessels bringing arms, ammunition, iron, tobacco, and furniture, while dry goods and manufactures from France and India had been introduced by twenty British ships.¹² 1817 was the year that Captain Richard Cleveland sailed for Chile in John Jacob Astor's *Beaver* with a cargo of European manufactures valued at \$140,000 and there were others operating on as large a scale.¹³

Judge Bland was something of a prophet when he predicted that "the infant settlement on the Columbia will be able to sell lumber and fish to Chile,"¹⁴ for in 1821 a North American vessel with a cargo of masts and spars "from some port of the northwest coast near the river Columbia" did arrive in Valparaíso.¹⁵ But the good judge erred when he thought that the United States could compete with the British for Chilean trade. A superior capacity for production at home, abundant capital, and greater business experience plus the valuable support of the Royal Navy were the deciding factors, and by 1819 or 1820 the British completely dominated Chilean commerce.

The mechanics of the process were interesting. Early in the eighteenth century, the great landowners around Santiago

had been the partners of the Peruvian shipowners in the coastal trade; later (after 1778) these *hacendados* worked with the Spanish merchants who had come in when the Chilean ports were opened to trade with Spain.¹⁶ When the Spaniards were expelled by the revolution, the landowners were the only people of wealth left in Chile, and they soon formed profitable connections with the British, whose aim was to fill the shoes of the departed Spanish merchants. In facilitating this new trade the Royal Navy played an important part, for there were no British consular agents in Chile until 1824. Not only did the officers of the Royal Navy have to act as "regulators of customs-houses, consuls, and plenipotentiaries," but also they were responsible for "the safe conveyance of homeward remittances, which necessarily consisted of dollars and bullion."¹⁷ Often a trader who wished to buy British goods would put his money aboard a British warship and send notification to London of this fact; insurance would then be placed upon the money or bullion, and the goods ordered in England would be shipped immediately, often arriving in South America before the warship returned to a British port.¹⁸

The British naval captains received a certain percentage on all remittances sent to England in their ships. This had its advantages and also its drawbacks for "the interest of the commander was in some degree identified with that of the trading class; the great object of our adventurers was to push immediate trade and the quick return of capital to Europe, without regard to the ultimate fate of British commerce. Upright and conscientiously disinterested as British naval officers are, it is clearly beyond the influence of human nature to avoid being affected by those feelings which the prospect of money-making excites; nor always possible to resist the influences of prejudices arising from those circumstances that might retard the immediate remittance of money homeward."¹⁹

The arrival of the British merchants produced a radical

change in Chilean economic organization and eventually in the realm of social and political affairs. Miers reported that although the importers of Valparaíso and Santiago were almost exclusively British, the retail trade was now in the hands of the natives:

"The wholesale trade having fallen into the hands of foreigners, and their gains being known to be great, the hacendados came forward with their limited command of means to habilitate their sons and dependants in little shops for the sale of the immense influx of European goods, which were retailed at an extravagant profit: owing to the scarcity of money, the foreign consignments sold below their value; indeed, it was necessary, in order to obtain the sale of large cargoes, to give long credits, and thus sprung up rapidly a new and independent race of shopkeepers, formerly unknown in Chile. The whole trade was carried on by the Spaniards, under the habilitacion system, so that the retailers were always servants, the merchants themselves being the real owners of the shops. The number of independent shopkeepers in Santiago is now, however, considerable, many shopkeepers possessing his thousand or ten thousand dollars, according to his success in trade: this race of beings has already produced a considerable effect upon the trade of the country, and will in the end, as they increase in number and in property, have a considerable influence on morals, and not less weight in the scale of politics, for hitherto everything has been under the controlling patronage of the aristocracy."²⁰

Miers and Caldecleugh were of the opinion that the Chileans lacked the necessary capital to engage in large business enterprises, but Hall saw a different side of the picture in the copper trade.²¹ He discovered that, although the copper mines were owned and worked by the so-called *propietores*, these operators were financed by capitalists in Coquimbo, Copiapó, and Guasco; from the *propietores*, the capitalists (*habilitadores*) acquired the copper at about half the market price and then sold it to the British at a profit of one hundred percent. Cargoes landed from British ships at Valparaíso were

often paid for in copper which was picked up at the northern ports.

The dictatorship of O'Higgins (1817-23) was a prosperous period in Chile. Hall found the stream of commerce in Valparaiso so swollen that the goods could not be stored in the warehouses and were simply piled up in the streets.²² Free trade, said Hall, had effected a price revolution. The price of copper, now the most significant Chilean export, had doubled, whereas imported iron and steel had fallen to one third of their former value. Other imports were substantially reduced in price: the cost of foreign foods and cloth had been halved, and cotton prices had taken a drop of ninety percent. Hall was a free-trade enthusiast—he once asked a Mexican native his opinion of free trade, and the native replied that cotton shirt cloth had fallen from nine to two dollars a bolt in price and added, "that forms my opinion of free trade." But the low prices were more likely a result of British dumping rather than of free trade.

After 1818 the Oriental trade flourished again: Indian cottons, nankeens, Chinese goods, rice and sugar from the East Indies, calico, muslin, silk, porcelain, and tea were imported, while gold, silver, and copper were sent in return.²³ Metals, as well as hides and tallow, went to England. 1821 saw the reopening of the old commerce with Peru: in exchange for sugar, cacao, tobacco, and salt, the Chileans sent copper utensils, leather, *charqui*, dried fruit, figs, olives, tallow, cordage, and wheat just as they had done in the colonial period.²⁴ Although cloth and hardware were the backbone of British trade, these things cannot compete in interest with the frills, the luxury imports, which found their way into Chile in this period. Cottons and woollens and cutlery fade into insignificance beside Broadwood pianos, silks from France and Italy, rosaries and glass from Germany, and continental carpets and mirrors.²⁵ The palace of O'Higgins had cast-iron English gates, Scotch carpets, French china, and French clocks. Maria Graham visited a lady in Santiago who had a piano, a French bed, and an ormolu clock.²⁶ Trade was inaugurating a revolu-

tion in urban culture: English pottery, porcelain, and teapots (and the British themselves) encouraged the replacement of *maté* by tea in refined circles—the day had passed when a Chilean servant was more likely to fry the tea than boil it.²⁷ Most city people, except the very poor, began to adopt European fashions in dress—English tailors and shoemakers were well established in Santiago in 1822.²⁸ One might interpret the presence of a Scotch pawnbroker in Valparaíso as a further token of advancing civilization; it certainly indicated prosperity!

It was all too good to be true, and of course it didn't last—the Scotch pawnbroker was murdered, and O'Higgins was overthrown. One could hardly expect evolution to be welcomed in the Garden of Eden. In a later chapter we shall see how "progress" was resumed after more than a decade of political uncertainty, but before we look ahead to see what the future had in store, it will be well worthwhile to describe the life of old Chile as the travelers found it.

Compared with other aspects of Chilean economic activity, trade and commerce were relatively unimportant until some time after the period under discussion. Moreover, the developments which occurred in mercantile affairs after 1800 were not paralleled by simultaneous changes in the conduct of grazing, agriculture, and mining. The quasi-medieval methods employed by the natives in these latter fields were abandoned slowly. Far down into the nineteenth century, many colonial habits and practices were retained without change, and the modernization of economic life was accomplished only through the most strenuous efforts of interested foreigners and immigrants.

The large estates of Chile where cattle raising and wheat growing flourished were indebted for their origin to the introduction of the *encomienda* system at the beginning of the colonial period. The abolition of the *encomiendas* in 1789 did not materially affect the operation of the great *haciendas*.

Their labor supply was not diminished when the laborers were freed from their bonds because many workers soon drifted into debt slavery as *inquilinos*, and there was also an abundance of peons willing to work for wages. The *inquilinos* were tenants who, in return for land, gave a certain number of days of labor to their patrons at the time of the *rodeo* and when it was necessary to move the cattle from one pasturage to another. For any additional labor the *inquilinos* were supposed to be paid either in money or in goods, but (*mirabile dictu*) they always found it much easier to obtain goods than money. After purchasing clothing and equipment for themselves and their horses at the owner's store on the *hacienda*, the *inquilinos* soon found themselves hopelessly in debt—and there they stayed.

The Chilean cowboy, the *guaso*, was a horseman unsurpassed by the Argentine *gaucho* or the Mexican *vaquero*. His horse was perfectly bred and trained for his work: "In Chile a horse is not considered perfectly broken, till he can be brought up standing, in the midst of his full speed, on any particular spot,—for instance, on a cloak thrown on the ground; or again, he will charge a wall, and rearing, scrape the surface with his hoofs. I have seen an animal bounding with spirit, yet merely reined by a forefinger and thumb, taken at full gallop across a courtyard, and then made to wheel round the post of a verandah with great speed, but at so equal a distance, that the rider, with outstretched arm, all the while kept one finger rubbing the post. Then making a demi-volte in the air, with the other arm outstretched in a like manner, he wheeled round, with astonishing force, in an opposite direction." ²⁹

Although the large and complex Chilean saddle was difficult to ride without practice, it was greatly admired because it distributed the weight more evenly on the horse's back. Chilean horses were small "with neat, pleasing limbs," and their tails swept the ground.³⁰ They were allowed to complete their full growth and gain their full strength before they

were broken; thus, a horse was not broken before the age of four, and an animal twelve years old was still considered a young one.³¹ The skill of the *guasos* with the lasso was proverbial. In the quaint English translation of Frezier's work we read of "leather nooses, which they manage so dexterously, that they take hold of a horse wherever they please, in his career."³² The lasso was made from "platted bulls hide," carefully selected, and cut in a single strand fifteen or twenty yards long. It had a running knot, of course, and it was fastened to a ring in the saddle.³³

At the time of the *matanza*, when the cattle were to be slaughtered, they were driven into a corral and then released one at a time. The *guasos* stood at the opening of the corral and lassoed the cattle as they came out; sometimes as many as twenty lassos would be necessary to hold the victim, which was then killed with a knife. The dead cattle were dragged on old hides to stalls where they were expertly cut up and hung. The meat was quickly transformed into long strips two inches in width, which were then hung until black and dry. After salting, these strips became *charqui*.³⁴

With so many cattle in the country, the tanning of hides naturally became a big industry both at Santiago and at Concepción; Miers saw more than forty tanneries around the former town (as late as 1909 there were 137 shops working hides and skins in the Department of Santiago). Oak bark was not available for tanning; instead, *lingue* bark was employed for sole leather, fine ox hides, and red gauntlets, *panke* ("with a root as big as a man's thigh") for morocco and tanned kid, and *patagua* or *peumo* bark for ordinary hides and sheepskins.³⁵ Chile was also noted in the colonial period for its cordovan leather, made chiefly from goat skins.

In addition to tanning and the production of *charqui*, another activity connected with the cattle industry was the making of soap. Throughout the colonial period soap manufacture in Chile was on a purely domestic basis. Each family made its own soap, and the product was succinctly described

by Schmidtmeier as "potent."³⁶ Goat's fat was preferred for soap making; it was mixed with lyes made of *espino* ashes and shell-lime.³⁷ At the beginning of the nineteenth century Stevenson made the obvious suggestion that Talcahuano (near Concepción) might be the logical site for a soap factory,³⁸ but the first manufacture of soap on a commercial scale was begun by two Englishmen in Quintero in 1820 or 1821.³⁹ Nevertheless, even as late as 1850, the Chileans were importing soap at the rate of \$70,000 a year.⁴⁰

In agriculture the principal crops were wheat, barley, beans, maize, potatoes, and alfalfa. Vineyards were important from early colonial times; in the late eighteenth century it was reported that some *haciendas* had forty or fifty thousand vines. Muscatel, Italia, and *aguardiente* were manufactured; in the twenties Caldcleugh took Chilean wine to England where it received favorable notice. The Spaniards had introduced peach, apple, cherry, orange, lemon, lime, olive, and almond trees; we hear also of quinces, apricots, and pomegranates. Hemp was grown around Quillota and Santa Rosa, and Darwin noted a palm whose sap, when boiled, gave a kind of treacle.⁴¹ It has already been mentioned that wheat, wine, dried fruits, and figs were significant exports.

Agricultural methods were primitive. Seed was sown broadcast for a century after Europeans had adopted the drill. The Chilean plow was made from a tree trunk; it had no moldboard, and it was not even tipped with iron as it was in some of the Spanish colonies. Stevenson says:

"The plough . . . is a piece of crooked wood, generally part of the trunk and one of the principal branches of a tree. The portion which is intended to move the soil . . . is about five feet long and six inches broad. One end is pointed and sometimes charred; at the other a handle rises about three feet high, forming with the bottom piece an obtuse angle . . . One end of the beam is inserted at the angle and is supported about the middle of the lower part of the plough by a piece of wood passing through it into a mortise made in

the lower part, where it is secured, as well as in the beam, by small wedges. . . . The beam is from ten to twelve feet long, the one end fastened as already mentioned, and the other lashed to the yoke, which is tied with thongs just behind the horns of the bullock. Instead of harrows they use a bunch of thorns, generally of the *espino*.”⁴²

This plow merely scratched the soil to a depth of four or five inches, and it was thus necessary to cross-plow a field.

The harvesting of grain was accomplished with an iron sickle equipped with a rough saw edge. Following the practice in threshing elsewhere in Spanish America, it was customary to fence in a circle of hard ground about one hundred yards in diameter. The straw was then placed on the ground and trodden by a herd of mares driven round and round the enclosure. The chaff and grain was separated by tossing the straw in the wind with rude wooden forks or branches of trees.⁴³

When Lord Cochrane came from England in 1817 to command the Chilean Navy, he brought with him all the new technical knowledge and all the enthusiasm which Englishmen of his day had for agriculture. Cochrane introduced on his estate at Quintero the English plow, the harrow, and the spade. These implements, as well as the shovel, had never been seen before in Chile, much less used. Their novelty was such that Chilean workers could not be persuaded to adopt them, and this Chilean resistance to innovation continued for many years.⁴⁴

Irrigation, an old Spanish custom, was extensively practiced with considerable success in Chile even in the colonial period, and it was the one feature of Chilean agriculture on which favorable comments might honestly be made. The growth of the alfalfa so essential to the cattle industry was largely dependent upon irrigation. Thus, one of the most useful and impressive public works undertaken by Don Ambrosio O'Higgins at the end of the eighteenth century was the construction of a canal from the Maipú to the Mapocho

which made possible irrigation around Santiago. The results of efficient irrigation were clearly demonstrated in a valley like that of Quillota:

"The prospect was one of remarkable artificial luxuriance. The valley is very broad and quite flat, and is thus easily irrigated in all parts. The little square gardens are crowded with orange and olive trees, and every sort of vegetable. On each side huge bare mountains rise, and this from the contrast renders the patchwork valley the more pleasing."⁴⁵

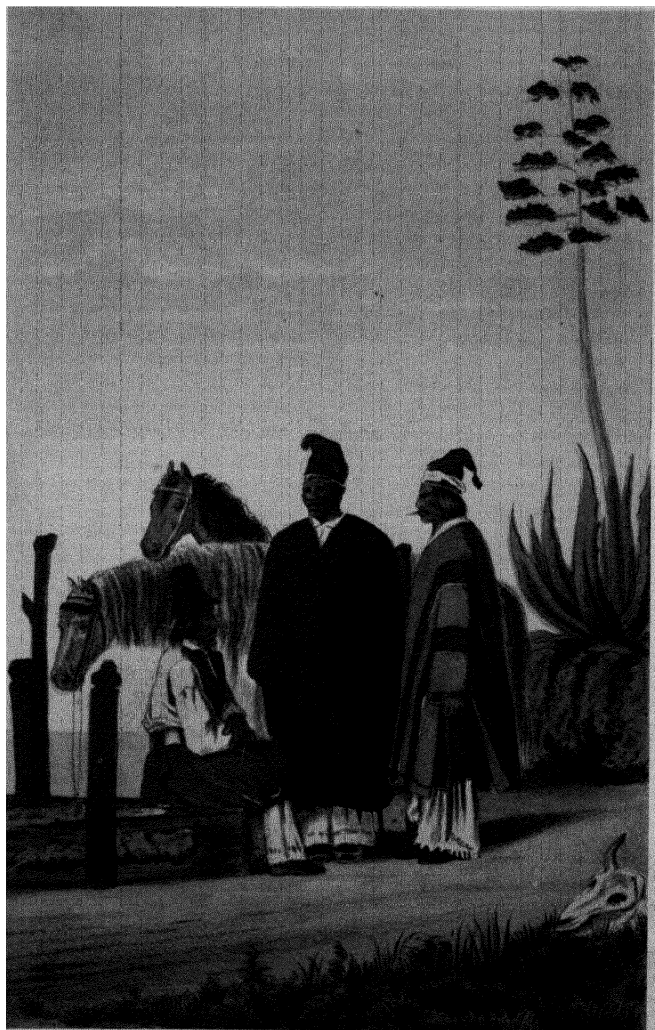
Some of the minerals of Chile have already been mentioned. Gold was sought throughout the colonial period with fair success. Most of the gold was acquired through washings (*lavaderos*) in the streams, but the amalgam process, like that used in silver mining (described below),⁴⁶ was also employed. At the beginning of the nineteenth century Chile was considered very rich in gold,⁴⁷ although the gold output never equaled that of silver and copper. During the interval between independence and the War of the Pacific, copper stood first in importance and silver second. Coal became significant, too, but the production of nitrates, iodine, and borax was a development of the later nineteenth century.

Water power was essential to the silver industry in its early phase. Without it the *ingenio* and the *trapiche* could not be used. The *ingenio* was a water-driven machine for stamping and pounding the silver ore. The water wheel was about twenty-five or thirty feet in diameter; as its axle turned, triangular eccentrics raised and then let fall heavy stones which broke the ore into small pieces. These smaller pieces were pulverized in another mill called the *trapiche*. The *trapiche* had a horizontal undershot wheel with arms like deep ladles. A shaft attached to the wheel ran up through a six-inch stone bed which had a circular channel eighteen to twenty inches deep. In this channel ran a wheel, a vertically running stone three and a half feet in diameter and ten or fifteen inches thick, which was fixed by a shaft to the axis. This wheel turned in the trough or channel of the stone bed

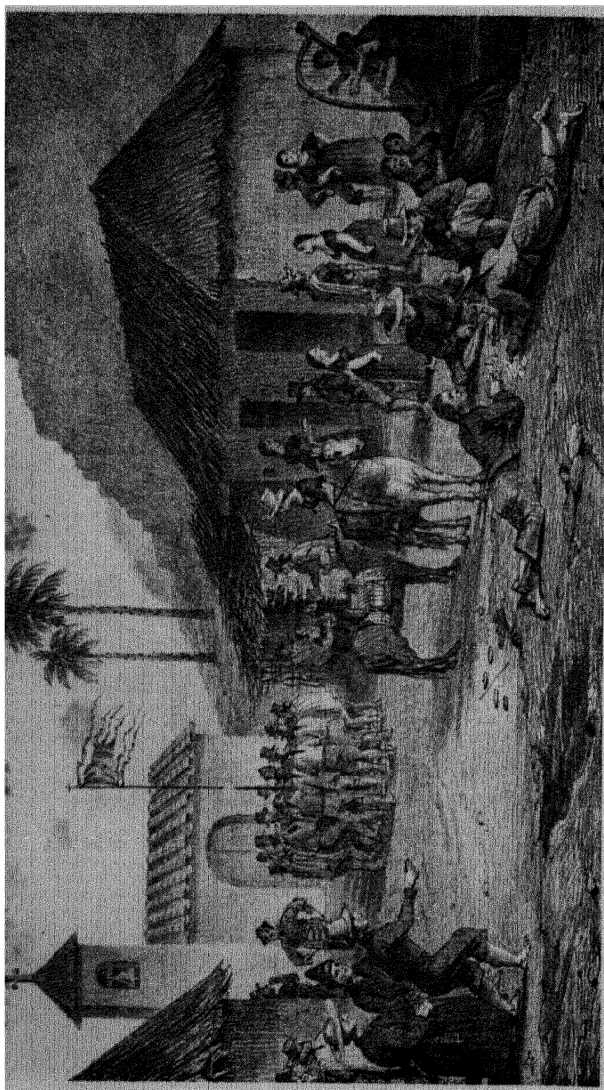
and pulverized the ore. A stream of water directed into the trough carried the ore particles into a series of three pits; in the first, the heaviest ore sank, the next heaviest in the second pit, and the remainder reached the third pit. The pasty sediment from the pits was taken out and placed on an ox hide where it was mixed with salt and mule dung. This mixture was sprinkled with quicksilver until it was saturated, that is, until the mercury "remained by itself." After ten or fifteen days, depending on the time necessary for saturation, the amalgam was put in a trough and stirred and then allowed to run into another series of three pits where the heaviest particles settled in the first and the lighter in the second and third. Once more the amalgam was removed, but this time it was put into leather bags, pressed with weights, and some of the mercury squeezed out in this manner. Next, the residue was placed in the *piña*, a pineapple-shaped mold with a perforated copper bottom, from which more mercury was squeezed. Finally, what was left was vaporized in a small furnace: when heat was applied, the mercury vapor rose to the earthen (later iron) cap or bell of the furnace where it was condensed and ran down into a pan of water placed on the floor.

The amalgam process here described⁴⁸ was still in use in the middle of the nineteenth century, but it was gradually replaced by roasting and later by more modern processes.

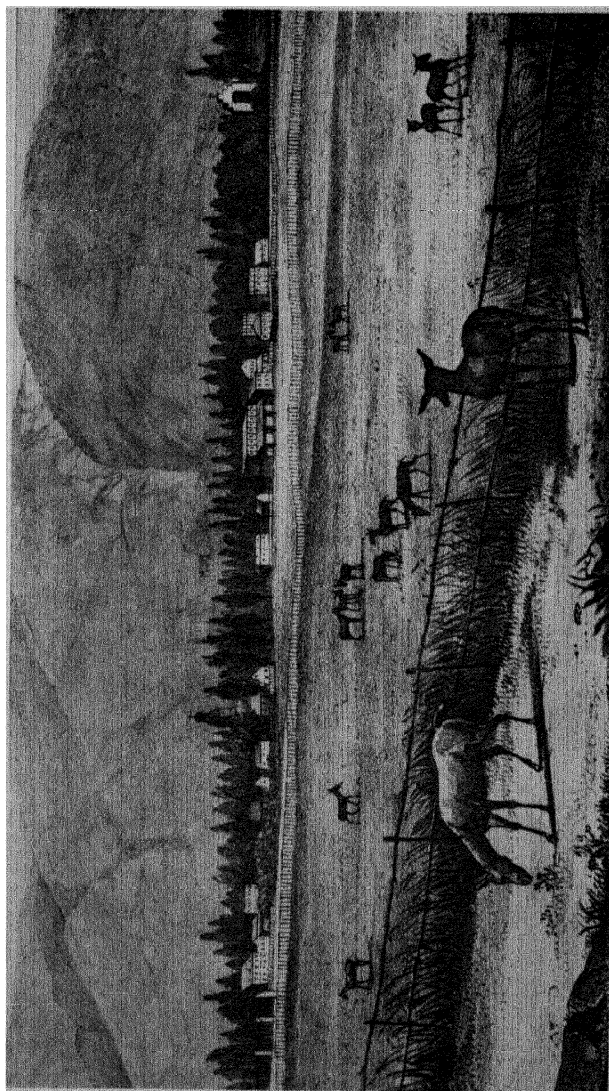
The principal copper districts were around Copiapó, Guasco, Coquimbo, and Illapel. Copper smelting was done in a small furnace shaped like a lime kiln and equipped with a dome and a chimney. Copper ore about walnut size was placed in alternate layers with firewood; the fire was fanned by a bellows which was sometimes powered by a horizontal water wheel. When the furnace was tapped, the ore ran out a hole in the bottom of the furnace into cold water. After the slag was scraped off, the residue was put into a refining furnace and then poured into molds about twenty inches long, a foot wide, and three inches high. It was then ready for export.⁴⁹



Gauchos



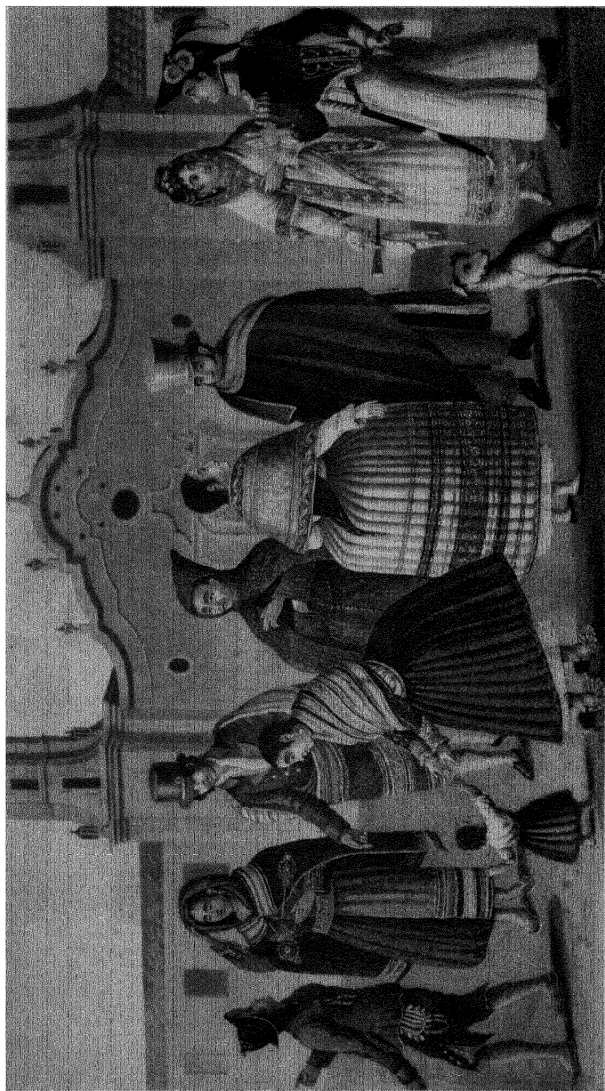
Fiesta in Chile



Tarma



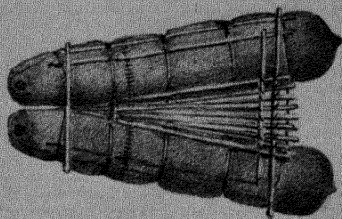
Saya y manto



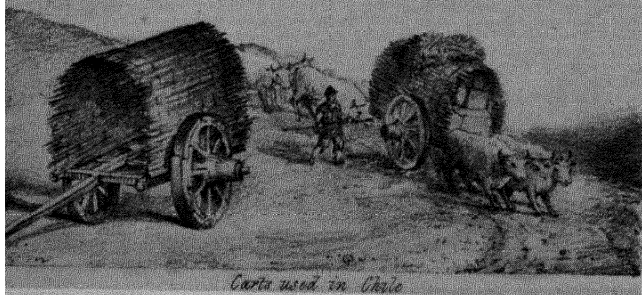
Costumes of Bolivia, 1825



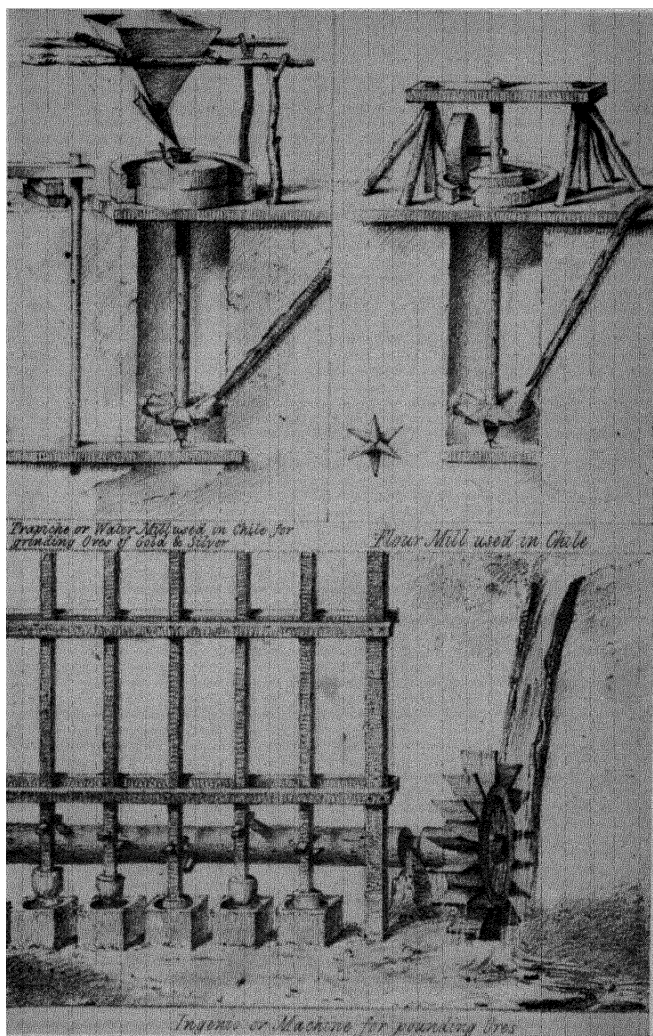
Mode of using the Balsas



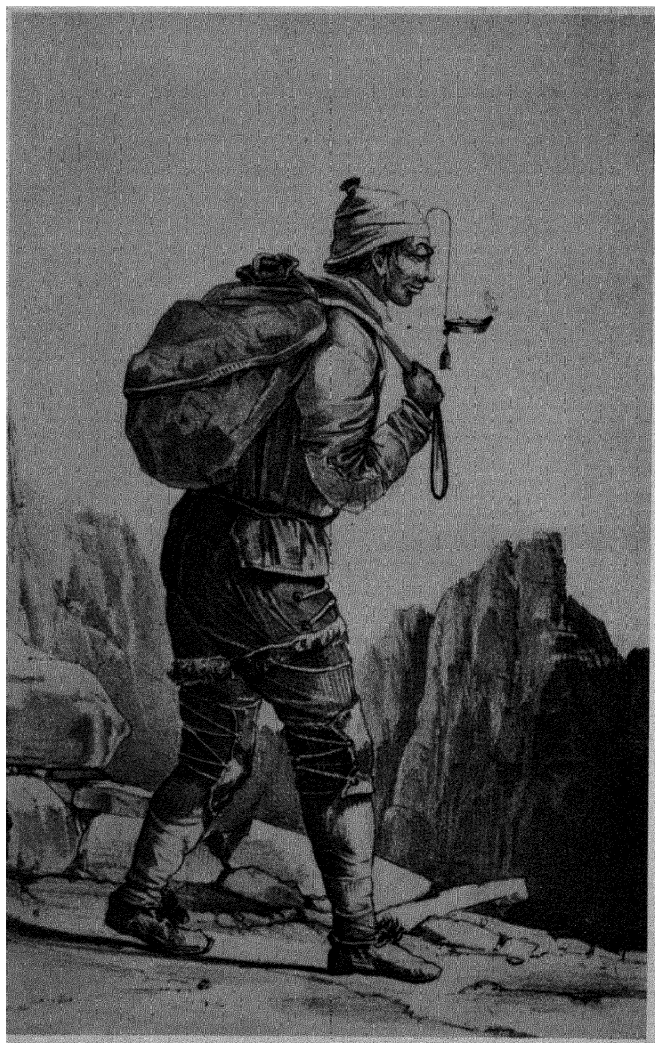
Plan of the Balsas



Carts used in Chile



Chilean Technology, 1825



Peruvian Miner

The Chilean mines were often quite deep, considering the primitive means for extraction at the disposal of the natives. In 1820 Hall reported seeing a copper mine 150 feet deep and a silver mine with a depth of 285 feet.⁵⁰ Mining was done by specialists: the *barretero* was responsible for boring and blasting (gunpowder was employed), and the *apire* carried the ore to the surface where it was loaded on mules and taken to the mills. The *apire* was paid less than the *barretero* and was more or less his understudy; every *apire* wanted to rise to the status of *barretero*. The *barretero*'s job was dangerous and also difficult. In boring he held the borer in his left hand and struck it with a twelve-pound hammer held in his right. But the *apire* was no weakling; he was expected to carry tremendous loads from the interior of the mine to the surface.

Darwin says, "I was glad to take an opportunity of weighing one of the loads, which I picked out by hazard. It required considerable exertion on my part, when standing directly over it, to lift it from the ground. The load was considered under weight when found to be 197 pounds. The *apire* had carried this up eighty perpendicular yards,—part of the way by a steep passage, but the greater part up notched poles, placed in a zigzag line up the shaft. According to the general regulation, the *apire* is not allowed to halt for breath, except the mine is six hundred feet deep. The average load is considered as rather more than 200 pounds."⁵¹

It was at Coquimbo that the British gathered to drive their first opening wedge into control of the Chilean copper industry. Dr. George Edwards, the father of the famous Chilean capitalist, Agustin Edwards, appeared there as early as 1805—Darwin was a guest of the Edwards family at Coquimbo in the thirties, but the major English invasion did not occur until about 1820.⁵² "Coquimbo appeared about to become the most thriving place in Chile," reported Andrews in 1826; an English smelting furnace, the first of its type in Chile, had just been erected, and the British had great plans for connecting the city by a canal with its port, Serena.⁵³

With the British came miners from Cornwall, men whose skill in mining was in great contrast to their ignorance of anything else: the classic example was the Cornishman who asked Darwin whether the family of *Rexes* had become extinct now that *George Rex* was dead. In soliloquy Darwin remarked, "This *Rex* certainly must be a relation of the great author *Finis*, who wrote all books!"⁵⁴

Cosmopolitan Coquimbo must have been a thriving place with its busy smelters and its streets crowded with weary mule teams staggering under their loads of dusty ore. For color no one could match the costumes of the native miners with their caps of scarlet velvet and short trousers of blue cloth, their long white worsted stockings and red ankle socks, their hide sandals with the peaked toes, and their colored sashes worn round the waist.⁵⁵

The presence of coal in Chile was recognized even before 1700, but it was not mined until the nineteenth century. The principal deposits were in the Talcahuano-Concepción area; lignite was later discovered on the Island of Chiloe and around the Straits of Magellan. The Lota, Talcahuano, and Lebú seams ran out under the ocean at depths of from three to nine feet below the surface of the ground. Chilean coal was first used by the English residents of Valparaiso and Santiago for their grates and fireplaces in the 1820's, but at that time the cost of coal production was so great in Chile that it was just as cheap to buy Newcastle coal from England, which sold in Valparaiso for thirty dollars a ton.⁵⁶

Manufacturing in colonial Chile had been on a small, rather than a large, scale. Most of the textiles, pottery, and other household articles were produced in the home for family use, or at best manufactured in a particular town or village for local consumption. It is true that the cloth of Chillan attained some prominence in Chile itself and that there were guilds of textile workers, but except for the leather and tanning industries and the production of copper utensils for export to Peru, manufacturing in Chile was

localized if not domestic. In Santiago there were silversmiths, curriers, saddlers, potters, and hatters (who made felt hats), but specialization of this kind would be unlikely in the smaller towns. Although there were tailors in Santiago, too, the English remarked caustically that a Spanish tailor could make only cloaks.⁵⁷ On the other hand, a fine Indian poncho was very expensive and in great demand. The manufacture of ponchos continued to be centered in Chillan and the southern towns: "The females of Chillan and the southern provinces are good-looking, and reputed to be very industrious; excellent carpets, ponchos, bed-quilts, and various kinds of coarse cotton, and woolen cloths are made by them; they dye these from roots and plants of various kinds."⁵⁸

Machinery in Chile was not only crude, but also rare. The horizontal wheel was ordinarily used in the few flour and maize mills of the country, although Stevenson saw a vertical wheel at Arauco which worked three pairs of stones.⁵⁹ Judge Bland observed three water mills (for flour) in Santiago and noted half contemptuously that they would be called tub mills in the middle states at home.⁶⁰

The mint at Santiago, "a handsome stone edifice of large dimensions which would attract admiration in any European city,"⁶¹ and "too magnificent for Chile,"⁶² a structure that later became the White House of Chile, housed machinery that was notably inefficient. The presses and stamping machines were heavy and clumsy; there were three presses, and it took six men to work each of them. The process of minting was probably like that employed in Peru at this time.⁶³ Heavy silver bars were cut into smaller pieces two inches thick by three feet long; these were heated and passed through rollers until they were reduced to the thickness of dollars. The presses then punched out flans, which were weighed, filed, and milled; thus prepared, they were heated and stamped. In Maria Graham's time mint officials were pinning their hopes on some new French machinery which apparently never was purchased because, in 1849, the mint

was unchanged.⁶⁴ At that late date, there was some talk of a steam engine to operate the presses, but the objection was raised that it would be too dangerous and that if it broke down there would be no one to repair it.

The state of technology in Chile is well illustrated, if not epitomized, by the prevailing method of making butter in vogue as late as 1822. Churns were unknown, so the milk or cream was put into hide sacks which were slung over a donkey's back: the donkey was then kept trotting around until the agitation of the fluid resulted in butter.⁶⁵ Apparently the fears of Brackenridge had some foundation: in speaking of the *lecheros* of Buenos Ayres, he remarked that he always expected their cries of "milk!" to be changed suddenly to those of "butter!"⁶⁶

When foreigners began to come to Chile in the nineteenth century, the mechanical arts showed some slight improvement. Three citizens of the United States set up the first printing press at Santiago in 1811.⁶⁷ For many years this was the only press in the country; in the twenties Maria Graham noted that its types were scanty and doubted its ability to turn out a quarto of four hundred pages.⁶⁸

Early attempts to establish industry on a large scale met with failure. Henderson, an Englishman, and his partner from the United States, Wooster, lost \$60,000 in their sperm oil factory at Coquimbo when the government confiscated their hogsheads for use as water casks (for the troops operating against Peru) and then refused to allow the partners to establish a reservoir for their oil near the town on the grounds that it would endanger public health.⁶⁹ Miers spent \$80,000 on his attempt to set up a mill to make copper sheathing, but construction was never completed because he could not secure a title to the site he had chosen for the factory. As a temporary substitute, he built a flour mill of English plan with an undershot wheel that worked three pairs of stones; he also had a sawmill that included a circular saw for making barrel staves.⁷⁰ Completely disgusted with Chilean stupidity

and the political uncertainty that prevailed after the fall of O'Higgins; Miers left the country early in 1825.

Of smaller projects in the twenties, we hear of a German (or a Swiss) who had a small factory for making coarse cloth, hemp yarn and bags, and cordage,⁷¹ the soap factory at Quintero already mentioned, and a brewery at Santiago. The brewery was founded by an Englishman and a Swede who imported their hops from England.⁷² This may, or may not, be the brewery mentioned by Mulhall,⁷³ which was erected by McFarlane, a Scotchman, in 1820, for Miers says, "Many attempts have been made to establish breweries, but all have failed Lately, a very intelligent Englishman conceived the practicability of brewing good beer . . . but no sooner had he completed his first brewings . . . than the government decreed beer and ale to be foreign spiritous liquors . . . therefore liable to be taxed."⁷⁴

For transportation colonial and early republican Chile was dependent upon the horse, the mule, and the ox. People traveled on horseback wherever they could; in the Andes they rode mules. Even as late as the 1820's there were few carriages on the streets of Santiago. For mountain and desert travel, in fact in all rough country, goods were carried by mules. In smoother territory ox carts very much like those of the pampas were employed; as elsewhere in Latin America, axle grease was unknown, a fact that discomfited strangers with tender ear drums.⁷⁵ If the opportunity afforded itself, goods were sent from point to point along the coast by ship. The sailing vessels in the coastwise trade, even those that went to Peru, were not large, nor were they especially numerous; to cite an example, Callao had only thirty-two vessels in 1780. The first steamer to appear in Chilean waters was the *Rising Star*, introduced by Lord Cochrane at least as early as 1822; this was a small ship with two covered engines of forty-five horsepower each. It was offered to the Chilean government for about \$35,000, but the government refused to buy.⁷⁶ At the same time there existed in Chile the machinery for two other vessels; it was never used.⁷⁷

Few roads in Chile were more than bridle paths. Of the three carriage roads the country possessed in 1817, the best was the Valparaiso-Santiago road constructed by the senior O'Higgins about 1795. Vancouver⁷⁸ mentioned work on this route in his account of a visit to Chile in that year: he said that although the blasting was done with gunpowder, the dirt was carried away on hides instead of in wheelbarrows. Broad, solid, capable of accommodating carriages three abreast, the road was greatly admired for the carefulness of its construction and the zigzag ascents which lessened the difficulty of crossing steep *cuestas* between Valparaiso and Santiago.⁷⁹ There was another carriage road between the two towns, which went around by way of Melipilla, and a third highway went southward to Talca towards Concepción.⁸⁰ Bridges were rare. The pretentious bridge in Santiago over the Mapocho, an insignificant stream, gave rise to the remark that Santiago "ought to sell the bridge, or buy a river for it."⁸¹ Hide suspension bridges, built like Inca bridges in Peru, spanned some streams, but these structures were often dismantled during the dry season when the stream could be easily forded.⁸² Ruiz mentioned a raft of poles tied to the tail of a horse which was used for crossing the Bio-Bio River in the south.⁸³

The presence of a good road between Valparaiso and Santiago naturally suggested to foreigners the introduction of a stage coach service. An enterprising North American did establish a stage line between the two cities in 1822, but it did not pay, and the project was abandoned.⁸⁴ Instead, those who did not care to make the trip on horseback rode in the most common type of carriage in Chile, the *birlocho* or *caleche* (*calisa*). Like the North American calash, this was a two-wheeled chaise; visitors called it a gig, but noted that the wheels were situated behind the body and that it was driven by a postilion.⁸⁵

That Chile had one particular attribute of paradise was never disputed: it was remote. We have already seen some-

thing of the difficulties of the overland route from Buenos Ayres to Chile, but the sea routes were not to be recommended either. Before the days of steam navigation, the passage through the Straits of Magellan was extremely hazardous. Even after the Dutch found the way around Cape Horn in 1614, the route was not a popular one. Forty-five days was considered a fairly fast passage round the Horn from Argentina to Chile. This was better than the frigate *Congress* could do in 1846. As Colton said near the end of the voyage, "Fresh meat, vegetables, and milk will be a luxury. Our last pig and fowls went some days since to the cook. Our potatoes still hold out, but they are not larger than bullets . . . Our hommony is in the kernel and will not soften sufficiently for use short of a week's boiling . . . The only fresh article of flesh kind is salmon in airtight jars."⁸⁶

He went on to comment that the bread baked on board would not rise; the plums were embedded in the pudding like marine fossils in rocks. They did have some tripe left, but the bandmaster had earmarked it for a new drumhead.⁸⁷

If one came down from Lima (Callao), the trip was not much better, for it was long and likely to be rough. Ruiz and his colleagues had a memorable voyage from Callao in 1781: a sailor fell from the main-topsail into the sea but was rescued because some one had the presence of mind to throw him a piece of wood to cling to until he could be picked up in a small boat. Less fortunate was a commercial passenger named Baltaya, who "not daring to go to the privy, he tried to move his bowels at one of the chainwales, from which he fell when the boat rolled."⁸⁸

The average length of a voyage from Callao to Valparaiso was at least a month. When Hall made it in eighteen days, people looked at him strangely; the last person who had claimed a similar feat had been burned at the stake for witchcraft.⁸⁹

Between independence in 1817 and the early thirties, Valparaiso, as the principal port of Chile, experienced consider-

able changes in size and appearance. When Johnston saw the town in 1812, it consisted of one main street "containing some handsome buildings occupied by the gentry," while the "cottages of the peasantry" were on the hillsides.⁹⁰ The "Port" on the west and the Almendral on the east were not even connected at that time, but were regarded as two separate towns. After 1817, however, the increase of population that accompanied the growth of trade, forced the building of many new public and private edifices and the Port and the Almendral were combined into a single city. About 1826 Brand reported, "The town of Valparaiso consists of one long street, facing the sea, with the high hills so close behind it, that the houses in many places touch them, except in the Almendral where it branches off into two streets."⁹¹

This gave a waterfront about two miles long, and people were already beginning to push up into the ravines (*quebradas*) that led up the hillsides. After the earthquake of 1822 more and more houses were built of wood instead of adobe or stone because wooden houses were found to resist the earth tremors more successfully than the other materials. Much of the new construction was done by English carpenters.⁹² By the thirties the narrow beach was given over mostly to business establishments—warehouses, offices, government buildings—while the merchants took to erecting large homes on the hill overlooking the city.⁹³

Cleaner than Lima or Buenos Ayres, Santiago, "one of the finest cities in South America," did not change much with the passing of the years except that it increased in size. According to Ruiz in 1781, "The buildings, although generally only one story high, are spacious and beautiful with their flower gardens, most of which can be seen from the streets, and a big court at the entrance; they are constructed of lime and sun-baked bricks, stones, and tiles, and the bases, halls, and courts are painted with earths of different colors, which embellish them wonderfully. Some of the buildings have a second floor. The streets are paved. The houses all have drains of

running water which are covered by the pavements of the streets."⁹⁴

The streets were paved with round stones from the river; down the center of each street ran a channel (*azequia*) or gutter which was filled for two hours a day by running water from the Mapocho River for the purpose of carrying off waste from the houses.⁹⁵ As the traveler walked along he could see the awninged patios through the double folding doors of the larger houses. Vancouver noticed "a very good house—after a design of Inigo Jones."⁹⁶

In the center of the city was the great square, or plaza, about "500 yards each way." On the north side of the plaza stood the governor's palace, a three-story building which included a prison as well as government offices; the cathedral was on the west; to the south were a number of little shops "under a heavy looking piazza," and on the east, in 1812 a meat market, in 1819 private residences and "the English hotel."⁹⁷ The *Fonda Inglesia* under the direction of Mrs. Walker was an institution by 1822; a decade later it had passed into the hands of a Scotchman.⁹⁸ When Head arrived in Santiago in 1826, Mrs. Walker had so many guests in the hotel that she had to put him in the carpenter's shop after he had failed to find satisfactory lodgings with a "North American lady." His encounter with the latter was amusing:

"I . . . was introduced into a room which had a mat, a few highly varnished, tawdry wooden chairs, and a huge overgrown piano-forte. One side of the room was glazed like a green-house, and looked into another small room. Two long, thin, vulgar-looking girls, who talked through their noses, now came in, and told me a long story about 'mama,' the object of which was, that mama was coming, and accordingly in she came. They were all at once asking me to be seated, and were inquiring into my history—[he was then offered the small room beyond the glass door]—'Good heavens!' said I to myself, 'how could I wash or make myself at all comfortable, either in body or mind, in such a place as this?

Those girls, and that terrible piano-forte, would be the death of me! I am afraid, madam,' addressing myself to the old lady, 'this will not exactly do,' and then out of the room, and out of the house, I walked."⁹⁹

La Moneda (the mint), the most handsome building in town, was not located on the plaza; instead it graced La Cañada, a broad avenue which ran in a northeasterly direction out past the hill of Santa Lucia to intersect the Tajamar, the principal walk along the Mapocho River. The Tajamar, which "looked toward the Andes," was the favorite promenade; with its willows and poplars, its fountains and *azequias*, and its broad walks and drives and comfortable seats, the Tajamar was a beautiful place in which to see and to be seen.

Learning and the fine arts did not quite keep pace with architecture and city planning in Santiago. The ubiquitous James Thomson appeared in Chile long enough in 1821 to found two Lancastrian schools in Santiago and one in Valparaiso; one of these shared a building with the government printing office in Santiago.¹⁰⁰ There was a public library (non-circulating) which had ten or twelve thousand volumes, half of them law books.¹⁰¹ Caldeleugh managed to force his way into a library of the Augustinian order which had been locked for years; he found it a complete shambles, but among the manuscripts he came across one tremendously scholarly treatise on a burning moral question: whether chocolate should be drunk before breakfast.¹⁰² The Santiago theater was able to accommodate about eight hundred persons; its chief glory was the private box of Dictator O'Higgins, which was decorated with red, white, and blue silk and sported a gold fringe. Both tragedy and farce were presented for the edification of the theater-goers; Haigh remembered a Spanish version of Shakespeare's *Othello* there in which nothing resembled the original "except Othello's black face and the smothering of Desdemona."¹⁰³

But, of course, there was music. "Every family has a guitar," and there was a piano in almost every house.¹⁰⁴

There were violins, harps, and flutes; there was also the *ravel*, a three-stringed fiddle. The Chilean harp, small and light, was held in a horizontal position with one end resting in the performer's lap. Harpsicords and spinets were giving way to the pianoforte in the twenties; and this is an interesting case of fairly rapid cultural diffusion, since most of the new pianos were Broadwoods, a make originated in England about 1775. People played Mozart sonatas and sang duets. Captain Head heard an orchestra of nuns in a convent:

"Four or five were playing on fiddles, which they held up to their necks like men . . . one was sawing an immense double bass, and another was blowing with a large hand-bellows into the lungs of a little organ, on which a sister-nun was playing."¹⁰⁵

And where there was music, there must be dancing. In the houses of the well-to-do, one saw minuets, allemandes, quadrilles, and "Spanish dances"; among the common people "native" dances were the rule. These were more "authentic," even in the twenties, the farther one got from the city. Many descriptions of the national dance, the *samacueca*, have been written; a typical account is that of Commodore Wilkes, written in the late thirties.

Wilkes says that the *samacueca* was usually performed at the *chingano*, a kind of amphitheater surrounded by booths in which refreshments (and strong drink) were sold. The dance was staged on a platform under an open shed. Music was provided by three women on a harp, a guitar, and a drum; these ladies also sang a love song in harmony while they played their instruments. The dancers were a young man and a young woman. The male wore a light scarlet jacket with gold lace, white pantaloons, a red sash and pumps, and a tiny red cap, while the female was attired in a gaudy printed muslin dress, short and stiffly starched, "not a little aided by an ample pair of hips," a French shawl, and silk stockings—"the dress in general fits neatly, and nature is not distorted by tight lacing or the wearing of corsets." The

dancers used castanets and handkerchiefs, and their style of dancing was "somewhat like the *fandango*." Their movements were graceful and "quite amorous," but "I cannot say much for its moral tendency."¹⁰⁶

Chile had its *tertulias* and picnics, like any Spanish American country, but bull baiting replaced bullfighting in the republican era. People played cards (*Rouge et Noir* among other games), dice, and billiards; MacRae saw a marvelous billiard table at Santa Rosa—eight feet long and ten feet broad, it had pockets big enough for a tenpin ball, and deep gutters were worn in the top of the table from the middle to the pockets.¹⁰⁷ Outside, bowls, skittles, and kite flying were popular. The Chileans would bet on anything: Caldcleugh found them wagering in the market as to whether the watermelons would be red or white on the inside.¹⁰⁸ The Araucanians had a kind of field hockey played with a wooden ball and curved sticks four feet long.¹⁰⁹

Although the Chileans were extremely courteous, their manners sometimes had an Elizabethan tinge. Ladies smoked and spat, and "the genteelest people in Santiago, the prettiest women eructate in public without any reserve, nor is it the smallest breach of good manners."¹¹⁰ At dinner the corner of the tablecloth was likely to be substituted for a napkin.¹¹¹ And, of course, houses were dirty. Vancouver complained that there were no brooms, and that the dust was laid with water when it would have been better to use a shovel.¹¹²

The universal smoking habit—about the only instance where the double standard did not prevail—was to be found all over Spanish America. In some places one distinguished the marital status of a lady on the basis of whether she smoked cigars or cigarettes. In Chile everyone rolled his own—"only a *chambon* (foreigner) doesn't know how to wrap a *cigarro*."¹¹³ Schmidtmeier¹¹⁴ blamed the inefficiency of the Chilean farmer partly upon the cigarette habit: cigarettes of corn leaves had to be held in one hand while smoked to prevent their coming unwrapped, while the European peasant, who smoked a pipe, had both hands free to work.

Chile was a militant Roman Catholic country in the early nineteenth century. Darwin relates that several pretty señoritas "were much horrified at my having entered one of their churches out of mere curiosity. They asked me, 'Why do you not become a Christian—for our religion is certain?' I assured them that I was a sort of Christian; but they would not hear of it."¹¹⁵

The fact that Darwin was a naturalist did not help his cause. A few years before a German collector had been arrested because he kept caterpillars in order to watch them turn into butterflies! An old don, when asked what he thought about the king of England sending Darwin out to pick up lizards and beetles and to break up stones, replied:

"It is not well . . . *hay un gato encerrado aqui* (there is a cat shut up here). No man is so rich as to send out people to pick up such rubbish. I do not like it: if one of us were to go and do such things in England, do you not think the King of England would very soon send us out of his country?"¹¹⁶

Yet the foreigners loved to make expeditions into the countryside, and they admired the great *haciendas*. Hall, arriving at an estate late at night, entered the *sala* (drawing room) where he was "blinded by the glare of a dozen wax candles," but not so much that he missed seeing the "rich carpet" and the Broadwood piano.¹¹⁷ In the country the Chilean ladies appeared to best advantage:

"We passed many Chilean ladies on horseback, dressed in all the colours of the rainbow. They wore round hats of silk, with gay feathers; their pillions were adorned with red, yellow, and blue pieces of cloth cut out in the shape of diamonds; the horses' head-piece and reins were covered all over with small square pieces of silver. Besides these ornaments, the blue saddle-cloth had a red border, with large red tassels attached to it."¹¹⁸

And food! If one knew the right people, it was easy to eat well in Chile. Stevenson describes a Chilean breakfast where the meal consisted of roast lamb, fowls, fried eggs, chocolate, toast, butter, and cheese.¹¹⁹ Just stopping off for a quick

lunch at a post house, Hall had a bowl of black figs, cold lemonade, white bread, and fresh butter; at a gala *hacienda* dinner, he reported bread soup enriched with meat or fish, and an *olla* for the main course which contained boiled beef, vegetables, and yellow peas; after this, roast beef and "other rich stews," and figs and grapes for dessert.¹²⁰ This was a far cry from the unfortunate experience of Hibbert in Aconcagua where dinner consisted of a big wooden bowl containing soup from which a dozen people fed themselves with the three available spoons; a "mess of stewed fowl" and walnuts (salvaged from a dirty pocket handkerchief) completed the repast.¹²¹ A parallel to this Olympian feast is Gerstäker's dinner with Doña Beatrice in Valparaíso:

"Donna Beatrice, in the meantime, busied herself about the fireplace; first producing a whole lot of eggs, and then a frying-pan; which latter she turned towards the light, in order to see in what condition it was. As far as I could judge of it, it was a rather melancholy one; but the Donna dropped the clout . . . with which, very likely, she had at first intended to wipe it saying, 'It would be a pity—there is still fat in it'; and then, with a very praiseworthy thriftiness, she broke the eggs which were destined for us, on this antediluvian stratum of grease."¹²²

Coffee was rare in Chile; instead, *maté* was drunk in the usual fashion with a gourd or silver cup and a *bombilla*. One of Hall's British friends insulted everyone by bringing his own *bombilla* to parties instead of using the one employed by all the other guests. In the south people drank *ulpu*, a beverage made from roasted corn flour, sugar, cinnamon, and water.¹²³

Chile was paradise, but it was paradise plus, for it possessed two wonders, the Turco and the Tapacolo, that were never seen in paradise. The Turco and the Tapacolo were birds. The Turco was a reddish-brown *Pterotochos*, which hopped quickly from bush to bush, probably ashamed of

itself because it looked "like a vilely stuffed specimen escaped from a museum."¹²⁴ The other bird "is called the Tapacolo, or 'cover your posterior'; and well does the shameless little bird deserve its name; for it carries its tail more than erect, that is, inclined backward towards its head."¹²⁵

CHAPTER VII

Innocents Abroad

"Ordinarily, such is life in Chile—calm, monotonous, without thought for the future or to benefit mankind; almost passionless." —*Lt. J. M. Gilliss, USN*¹

THE reading public of England and the United States received its impressions of mid-nineteenth-century Chile principally from North American sources. The most complete description of Chile in the fifties was contained in the report of Gilliss, who headed the "United States Naval Astronomical Expedition to the Southern Hemisphere" (1849–52).² During the same period other American naval officers visited Chile. Strain was there in 1849, Herndon in 1850, and Archibald MacRae was, of course, second in command in the Gilliss party.³ A valuable though sometimes naive, supplement to these accounts was provided by Mrs. C. B. Merwin,⁴ the wife of the United States consul in Valparaíso, who came to Chile in 1853; it is proverbial that a woman is likely to notice things that a mere man would never see, and for social history the feminine point of view has its advantages.

Around the middle of the nineteenth century, a journey to Chile from the United States was long and arduous, but not necessarily dangerous. After the California gold rush had led to the establishment of regular steamer connections between New York and Aspinwall (on the eastern side of the Isthmus of Panama) and the Pacific Steam Navigation Company had begun to operate its vessels between Panama City and Valparaíso, travelers from the United States usual-

ly proceeded to Chile by way of Panama and the west coast of South America instead of sailing round the Horn. Before the building of the Panama Railroad (1852-55) travel across the isthmus was amphibious: one took a small boat up the Chagres River from Aspinwall to Cruces and from that point rode overland by mule to Panama City. Thus, Gilliss in 1849 journeyed across Panama with no better accommodations than those afforded Juan and Ulloa a century earlier. When Mrs. Merwin came down in 1853, she was able to go by rail from Aspinwall to Barbacoa, a distance of twenty-three miles, but then she had to spend an uncomfortable night in an open boat on the Chagres and another day and a half on the trail through the Panamanian jungle from Cruces to the Pacific.

The city of Panama had changed since Captain Hall's visit there in 1822, although people were still discussing the necessity for a canal across the isthmus.⁵ The bishop's palace was now the American Hotel, and its façade was covered with painted signs advertising "ice, eggnogg, good lodging, brandy smashes, and cheap board." There were other indications of North American influence, too. The *Calle de las Monjas* had become Main Street where one heard the nasal twang of New England and the drawl of the South as often as Spanish; instead of the voices of negro slaves singing the old revolutionary song "Libertad! Libertad!," Gilliss was greeted by the sound of a flute and drum playing "Yankee Doodle," "Nancy Dawson," and the "Sailor's Hornpipe." Already, bones were beginning to pile up in indiscriminate heaps in the American Cemetery where the blowing, shifting sand was an ineffectual covering for the graves.⁶ The beach appeared to be composed of broken bottles, and as late as the seventies—long after the gold fever had subsided—a British traveler complained that there was still "an objectionable flavor of bastard Yankeeism about the place."⁷

The trip southward to Callao in the iron steamers of the Pacific Steam Navigation Company required nine or ten days. Then another ten days brought the traveler to Val-

paraiso. This was fairly rapid transportation, considering that the vessels usually put in at Pisco, Arica, Cobija, and Caldera to pick up passengers and freight. Not many years before, a voyage of two months between Panama and Valparaiso would have been thought exceptionally swift.

Valparaiso, a city "shaped like an hour-glass"⁸ with the Port to the west and the Almendral to the east, had one of the busiest harbors on the Pacific coast. When Valparaiso had been made a free port and when warehouses for bonded goods had been erected there in 1833, the future of the town had been assured. Goods deposited in these warehouses were not intended for the Chilean market: subject to a small transit duty, they merely awaited trans-shipment, for Valparaiso was the rendezvous where vessels from Europe and the eastern ports of the United States exchanged cargoes with other vessels from Asia, New South Wales, and the Pacific coast of North America.⁹ Ships also anchored at Valparaiso to take on food and water, and the local merchants had contracts to provision the warships of several foreign navies. Since the water about the wharves and docks was too shallow to accommodate seagoing vessels, provisioning was accomplished by means of lighters and floating water tanks.

The importance of Valparaiso was well summarized by the report of the Belgian Consul General in 1857:

"Valparaiso is the commercial foyer for all Chile and the provinces of Potosi and Chuquisaca in Bolivia. Valparaiso has numerous connections with the whole west coast, with Costa Rica, Peru, and Ecuador, with Brazil and Paraguay through the *maté* trade and other products consumed in Chile and Bolivia; with China and the islands of the South Sea from whence it receives divers products in exchange for manufactured goods.

"Also the coasts of Chile and principally the port of Valparaiso are visited by numerous ships coming from Europe and North America, and by the little coasting vessels which carry to Valparaiso the grain and flour from the provinces of

Concepción, Nuble, Maule, and Talca, the coal from Lota and Coronel, and the silver and copper from the provinces of Copiapó, Huasco, and Coquimbo.

"After discharging their European cargoes at Valparaiso, many foreign vessels proceed to Iquique for nitrates or to Chinha for guano."¹⁰

There were located in Valparaiso no less than fifty-four large mercantile establishments; among these seventeen were British, eleven French, nine Chilean, four Spanish, and three North American. Of the latter, Alsop and Company had correspondents in New York and Boston, and the Hemenways were also a Boston house; the head of the Valparaiso branch of Loring and Company was no less than William Wheelwright himself.¹¹ Commerce in Valparaiso was so lively that there were two daily papers devoted to shipping news and reports of commercial transactions.¹²

In a bustling town like Valparaiso, housing was difficult to secure. The Merwins finally ran across a North American engineer who was just leaving Chile; they bought his furniture and arranged to move into the quarters he was vacating. For eight hundred dollars a year the Merwins enjoyed the privilege of renting the whole second story of a building which had shops on the ground floor. Their "apartment" consisted of a kitchen, dining room, parlor, and seven bedrooms. There was no running water, and, until Mrs. Merwin found a cook, they had to have their meals brought in from a nearby cafe because the curious brick range in the blackened kitchen was too much of a challenge even for North American ingenuity.

Heating was a problem, too. Municipal regulations forbade the use of fires except for cooking. The reason for this prohibition was that Valparaiso had experienced many serious conflagrations. The wooden buildings in town were notorious firetraps, and the frequency of earthquakes made it doubly dangerous to heat the houses with anything but the traditional braziers. Mrs. Merwin's quarters were equipped with a

North American coal stove, but when she started a fire in it on the first cool day, a police officer appeared and, after a long argument, tore the fire to pieces and departed.¹³

Once settled, the cares of housekeeping sat lightly on Mrs. Merwin's shoulders. She had a butler, a cook, and a laundress. Eventually, she became used to the lack of running water. Every day water was brought by a man on a donkey — with his water cans slung before him over the donkey's shoulders, the man was mounted "so far back that it was difficult to tell which animal the tail belonged to."¹⁴ Then the bread man and his mule came along, and finally the milk man, dipping his wares from tin cans. The Merwins often ate at one of the hotels where a special treat was the excellent coffee, tea, or chocolate brewed or prepared at the table in individual quantities. Fruit bought at the market was good, except for the apples and peaches which were "tasteless"; and it was always exciting for a North American to be able to buy fine strawberries in December!

In the evening Mrs. Merwin, like the other ladies of Valparaiso, could go shopping. The fine selection of European goods maintained by the shopkeepers of the town had long been famous;¹⁵ Mrs. Merwin discovered that silks made for South American markets were much better than those to be had in the United States. We are not told what Consul Merwin discovered about prices.

Back in the thirties Thursday nights had been enlivened by band concerts serenading the governor of the port.¹⁶ In the fifties the Italian opera company resident in Valparaiso gave performances on Sundays and Thursdays. This was an expensive amusement: a box cost ten dollars and the general admission was a dollar and a quarter. Although the appearance of the opera house and the presentation of the opera were familiar and conventional enough, the behavior of the male portion of the audience was not paralleled by anything Mrs. Merwin had seen back home "in the States": "Between the acts of the play or opera, the gentlemen go out into the

vestibule, or upon the side, to indulge in the universal cigar, and a bell is rung to recall them before the curtain rises. The house is so filled with smoke for a few minutes after each act, that you can scarcely see across it. At the close of the performances all the gentlemen who have no ladies in charge, hurry into the vestibule, and take up their positions in a row, leaving a lane through which the ladies must pass, and stare at them with great earnestness, commenting often on their beauty. So far from considering this an impertinence, the Valparaíso fair think it very complimentary."¹⁷

We are left in some doubt as to the operatic bill of fare. The only opera mentioned by Mrs. Merwin is Verdi's *Ernani*, but Gilliss provides a small clue. He never reconciled himself to the Chilean predilection for Verdi; his own favorite was Bellini, whose operas were rarely performed in Chile. The fact that only thirty people in Copiapó cared to sit through a performance of Bellini's *Capulets and Montagues* was sufficient evidence for Gilliss that Chile was uncivilized.¹⁸

Valparaíso was remarkably orderly in the fifties despite the fact that it was a port of international significance. Mrs. Merwin thought life and property much safer "in the midnight streets" of Valparaíso than in many cities of the United States—Tschudi thought Valparaíso more orderly than European cities.¹⁹ The entire police force consisted of thirty-four foot and twenty-eight horse. Those who patrolled the streets by day were known as *Vigilantes*, while the night watchmen were called *Serenos* because of their nocturnal refrain, *las dos han dado y sereno* (past two o'clock and a fine night).²⁰

These "howling nightingales," as Hutchinson called the *Serenos*, often occasioned much amusement to foreigners. The Buenos Ayres *Standard* was the source of the following story:

"A terrible row occurred, a few nights ago, between two *serenos*. One fellow was shouting, 'Half past eleven o'clock and all serene!' when, just as he turned the corner, he met

one of his companions, who was crying out 'Twelve o'clock, and cloudy!' The Calle Bolmar man demanded, in the most peremptory manner, what the other meant by shouting out such a lie; and the answer received was a poke of the lance, and a blow on his breadbasket with an almost extinguished lantern. Then the fun commenced. The old lances were like needles without a point, and did not even suffice to tickle the jolly watchmen. After becoming mutually tired of the spearing game, and the night being very cold, they set to wrestle a little. Unfortunately there was a good deal of mud in the street, and the combatants acquired some real estate. Our informant, who was passing down at the time, observing the prostrate figures of the nocturnal singers, inquired into the cause. The combatants, having explained the difficulty, agreed to leave the matter in dispute to the passers-by, who decided they were both in the wrong, as it was past four o'clock in the morning, and nearly as bright as day."²¹

The police in Valparaiso were brutal in their methods, and justice in Chile could be quick. Mrs. Merwin notes, "*May*. On the 27th, a murderer was shot in the Plaza de Orden, which lies at the foot of our hill. Thousands assembled on the hill-sides, housetops, and every available spot to witness the execution. The criminal, clothed in a long white robe, and accompanied by three holy fathers was led to a post, seated with his back against it, and his arms and body tied to it. Eight soldiers were drawn up in front, and at a signal, four of them fired at his heart—a drooping of his head was the only perceptible motion that followed the discharge. I had no intention of witnessing so horrible a spectacle, but looking with a glass to see how the man was secured, the soldiers fired before I could withdraw my eyes. This is the mode of execution in Chile."²²

Before they left in 1856, the Merwins witnessed a number of improvements in Valparaiso. Through the efforts of the great William Wheelwright of Newberryport, Rhode Island, a resident of Valparaiso since 1830, reservoirs for water were

built on the hills, and the water was brought into town through iron pipes. Wheelwright was also instrumental in securing gas lighting for the streets in 1856.²³ In 1855 the first section of the Santiago-Valparaiso Railroad was opened to traffic; this established a rail connection between Valparaiso and Viña del Mar, about forty miles away, and it marked the beginning of popularity for that now-famous seaside resort which had once been the estate of the infamous Carrera family.²⁴

The Merwins were among the first passengers on the railway. Mrs. Merwin noted that the locomotives were British, while the first-class carriages, which resembled stage coaches, had been made in Belgium. The second-class passengers rode in a kind of flatcar fitted with seats but lacking a roof.²⁵ The railway had reached Quillota by 1859; Peabody speaks of the Belgian coaches which were still in use.²⁶ It was 1863, however, before the road was finally completed to Santiago; this was the work of Henry Meiggs, the American promoter who had come to Valparaiso in 1854 just a few jumps ahead of a California sheriff. His success in finishing the Santiago-Valparaiso line, after other contractors had failed, was the beginning of his career as a railroad builder in South America.

While the Chilean railroads were being built, a number of organized stage coach lines were operating in Chile. A North American established coach service between Valparaiso and Santiago in 1855, and the Merwins traveled with him when they went up to Santiago for a vacation that year. Concord coaches and California drivers were employed on this line; there was one coach each day, and the trip took eighteen hours—the time was cut to fourteen in the sixties.²⁷ Peabody commented in 1859 that the stage office in Santiago reminded him of the Boston Express office at home: it was full of Yankees with “every other word an oath.”²⁸ Not only the North Americans but also the French were active in this field of transportation, for there was a French stage on the Santiago-Valparaiso run. French coaches also ran between San-

tiago and San Felipe; coming down from the latter town, Peabody had a Massachusetts driver who had originally come to Chile as an expert in submarine diving.²⁹

The wide streets of Santiago were a novelty after the narrow ones of Valparaiso, although Mrs. Merwin was a little shocked by the "open sewers" (*azequias*), and it was annoying to find that the earthen pipes which carried water into the city were frequently clogged. One noted the big houses, each with its flagstaff jutting perpendicularly from the second story, and the huge folding doors, wide enough to admit a carriage. Some mansions were lavishly furnished: ten thousand dollars for parlor furniture from France was not unusual.³⁰

On this latter point DeRote has much to say. He notes that, while there was furniture-making in Chile, much of the better furniture was imported from France or Hamburg; the favorite styles were Louis XV and Renaissance. Also popular were laquered tables inlaid with ornamental bouquets of mother of pearl. The massive old silver service (*chafalonia*) of the colonial period was going out; very much in demand was the British tea set with its teapot, sugar bowl, cream pitcher, and tray. British and French pottery, porcelain, and faience were coming in. One shudders to think of "candelabras of beaten bronze ornamented with crystal prisms."

Pianos were always to be found "*chez les gens aisés*." No less than 278 pianos entered the port of Valparaiso in 1857. All types were represented, grands, uprights, and so on, but the upright was most common. For shipping the pianos were packed in hermetically sealed, zinc-lined, wooden cases. The most popular makes of pianos were Colard-Colard, Erard, and Hertz; approximately one half the total imported came from France, the rest being equally divided between Germany and England. Guitars might be made locally, but strings came from France and Germany. Most church organs were of French origin; they were repaired by piano-tuners—a horrible thought!³¹

French shops abounded in Santiago, and Parisian fashions were seen on the streets. Gilliss was impressed by the passion for fine dress; even the "mechanics and shopkeepers" turned out in handsome style on holidays.³² The ladies, however, insisted upon concealing their beautiful clothes (and lush contours) with the inevitable shawl. "If the shawl were evidence of an interesting condition, we should number within the category every female in Santiago above twelve years old."³³

Santiago had three newspapers and a new penitentiary. The latter was an octagonal brick building with accommodations for more than five hundred prisoners; it was built in the "modern" fashion (probably inspired by similar structures erected in the United States during the era of prison reform). The town also had several hospitals, a university, and an agricultural school. The National Institute had nine hundred pupils taking a six-year course; its thirty-six professors offered Latin, Greek, English, French, mathematics, natural and physical science, geography, music, philosophy, rhetoric, and religion. The National Library contained twenty-one thousand volumes; about five thousand of these were on theological subjects and twenty-five hundred on science. The library was open from ten to one daily, but circulation of the books was not allowed. The Industrial Exhibit was a great disappointment; only its flowers and embroidery were worthy of mention.³⁴

In the cemetery at Santiago there stood a fine (but nude) sculptured figure called "Grief." The Chileans never forgave Gilliss for circulating the story that the archbishop had ordered "Grief" to be covered with a white petticoat. Baxley, who visited the cemetery in the sixties, solemnly reported that "Grief" did not have a petticoat; instead, her modesty was fully protected by a cement figleaf obviously not from a sculptor's hand.³⁵

Gilliss had complaints of his own to make. Sometimes, when observations were to be made at the observatory up on Santa Lucia, the city was so noisy that the ticking of the

chronometer could not be heard. "All Santiago does not boast a sweet-lipped bell, and the little clappers fly as though suspended from the necks of running cows."⁸⁶

When the bells rang, the dogs began to bark, and Santiago, like all Latin American towns, was full of yapping curs. In Valparaiso Mrs. Merwin noted that "Dogs are one of the pests of the city. They are of all kinds and colors, from the tiny white Lucia poodle (the pet of the parlor, washed, combed and flea-d every morning), down to the mongrel cur of mangy constitution and unsightly aspect. They roam about the streets and lie in the doorways; and hundreds that have no masters, live wild on the hills. . . . One day, to our great horror, a donkey fell dead near our door; but the hungry dogs pounced upon him, and in less than twelve hours no vestige of the deceased animal remained."⁸⁷

After hydrophobia appeared (or was identified) in South America early in the nineteenth century, stray dogs constituted a serious menace.⁸⁸ In the cities periodic drives had to be made to reduce the undesirable canine population; at Santiago, for example, all the porters and water carriers were required to assemble once or twice a month to catch and kill all dogs found on the streets without collars.⁸⁹

Santiago, like Valparaiso, had disastrous fires. Baxley commented about 1861 that the steam fire engine and the alarm telegraph had not yet been introduced in Chile, but he predicted, "By and by she will be taught their value."⁹⁰ And Baxley was right. In 1863 candles carried in a procession through the packed Church of the Immaculate Conception in Santiago ignited the paper decorations with which the church had been hung. Within a short time almost *two thousand* people, mostly women and children, had been burned to death.⁹¹ It was following this holocaust that Henry Meiggs at his own expense imported from Boston a steam fire engine.

Before Chile was debauched by the nitrate wealth acquired through force of arms in the War of the Pacific (1879-83),

the development of the country was normal and healthy. The population doubled in the first thirty years of the nineteenth century and doubled again in the next three decades; by 1865 there were almost two million people in Chile. Meanwhile the volume of foreign trade continued to grow; its value tripled between 1840 and 1860 and had nearly quadrupled by 1870. The steady increase of foreign trade was undoubtedly a significant factor in promoting the almost unbroken internal peace which Chile enjoyed during this period, since anywhere from a half to two thirds of the governmental revenues were derived from customs duties. The income of the government quadrupled between 1833 and 1863, an increase that paralleled the upward movement in foreign trade.

Copper mining was the largest industry in Chile between 1830 and the War of the Pacific. The principal exports of the country in 1850, for example, were copper and wheat (including flour), but the value of the copper was twice that of the wheat; by 1860 this ratio had risen to five to one. Whereas the copper industry was concentrated in the north, the center of wheat production was in the south around Concepción. The Chileans made large profits by sending flour to California in 1848-49, but this Chilean flour often deteriorated during its long sea voyage. As a result, hopes of further competition with the millers of the United States were completely dashed when the canny Yankees developed a kiln-dried flour that could be shipped over long distances without damage.⁴²

The leading imports of Chile in the mid-nineteenth century were cottons and sugar. Gilliss says: "Being almost without factories of any description, Chile is dependent on foreign nations for every supply except food; and even of this its *yerba mate*, coffee, and sugar are all imported. Proportionally to its population, more of the last is consumed than in almost any other country; the quantity introduced in 1850 being 13,600,850 pounds, and 2,281 pounds of sweetmeats, or 9 1/7 pounds for every inhabitant."⁴³

About two thirds of the imports of Chile normally came

from England and France, although there was a period in the forties when North American goods came near to supplanting British cottons and when woollens from France and Germany were gaining at British expense. This, however, was only a temporary situation caused by the Chilean dissatisfaction with shoddy goods sent out from England in that era. The British soon learned that the use of sizing and other tricks "to make the worse appear the better" did not win new customers or retain old ones.⁴⁴

Gilliss presents interesting statistics relating to the business of Chilean ports in 1850.⁴⁵ In that year about 850 ships bound either to or from California anchored in Chilean harbors. Of all the foreign vessels that visited Chile, 533 carried the flag of the United States, 202 were British, 165 Peruvian, and 43 French. Although Valparaíso was a major port for both foreign and coastwise shipping, the figures for Concepción in the south and Coquimbo in the north are significant. At Concepción in 1850 there appeared 104 Chilean, 198 United States, and 26 British vessels, whereas at Coquimbo there were 63 Chilean, 15 United States, and 135 British ships. These figures show the strength of the British mining interests in the north, whereas the presence of so many North American vessels at Concepción was undoubtedly due to the developments in California. Concepción was the logical port at which to take aboard provisions for the California voyage or at which to secure a cargo of foodstuffs which could be sold at high prices in San Francisco.

Although the rise in Chilean copper production and the increase of commerce in the Pacific were factors in bringing Chile into closer touch with the rest of the world, the development of steam navigation was even more important in this respect. In 1837 the distinguished North American William Wheelwright obtained a charter from the Chilean government to operate a steamship line from Valparaíso to Panama. Failing to interest his countrymen in the venture, he obtained English capital and British-made vessels. In 1840 his first

steamships, the *Peru* and the *Chile*, arrived in Valparaiso after sailing through the Straits of Magellan. They were the first steamers to use this route; the third steam vessel to pass through the straits was the *California*, the first ship to go from New York to California after the gold rush began.⁴⁶

The Pacific Steamship Navigation Company prospered and expanded. In 1853 a line was opened to Valdivia and Puerto Montt (following the German colonization of that region), and in 1860 Wheelwright established weekly sailings to Callao from Valparaiso; by that time the line was operating eighteen steamers in the Pacific. The first class fare to Callao was \$95; freight cost \$10 a ton; from Valparaiso to Panama the first class fare was \$230 and the freight rate \$18 a ton.⁴⁷ That the steamship business was profitable, there can be no doubt. Although Wheelwright had difficulty in making ends meet in the early days of the line, it eventually paid nice dividends, and in the sixties a small private company with only one steamship was reputed to have paid for the vessel and made a profit of 30 percent in two years.⁴⁸

Wheelwright also built the first railroad in Chile, a short line from Caldera to Copiapó which was completed in 1851. The Valparaiso-Santiago Railroad, begun in the next year, was partly financed by Joshua Waddington, a British associate of Wheelwright who had come to Valparaiso in 1817 and had made a fortune in copper. By 1863 Chile had five railroad lines with a total length of 543 miles and in that year the railroads carried 754,760 passengers.⁴⁹ Wheelwright had been persuaded to use North American locomotives on his first road, and when their superiority to the British product was recognized they were employed on other Chilean railways. In 1860 DeRote reported that there were eight British locomotives on the line between Valparaiso and Quillota; of the six locomotives running between Santiago and Rancagua, however, four were made by Rogers of Paterson, New Jersey.⁵⁰ In 1879 Boyd admired these North American locomotives with their "powerful steam brakes."⁵¹

Steam invaded other fields in Chile besides that of transportation. A steam flour mill was set up with North American machinery at Talcahuano in 1839,⁵² and Gilliss in the fifties saw several others in the same vicinity.⁵³ The establishment of a steam sawmill near Concepción was one of the first steps in the real exploitation of the southern forests; with fine timber of her own, Chile had been importing boards from the United States for thirty years because she had nothing but handsaws with which to cut her lumber.⁵⁴ In 1858 the Pitts Company of the United States sold almost forty of its steam threshing machines in Chile, while the Rose, Innes Company had established an agency for agricultural machinery at Valparaíso.⁵⁵ DeRote reported the introduction of North American plows in 1860, and noted that companies in the United States were sending their catalogues to Chile to describe the various types of agricultural equipment they had to sell.⁵⁶

By 1863 Chile had 132 steam engines with a combined horsepower of 9,970. Three engines were used in sawmills, thirteen in distilleries, two in blower furnaces, six in flour mills, and fourteen in coal mines. Adding to this total of thirty-eight the forty steam threshers noted above, it may be guessed that the remaining fifty or sixty engines included locomotives and the engines employed in the Chilean steamships (which numbered about thirty at this time).⁵⁷

Closely connected with the increasing use of steam power (and with the rise of the copper industry) was the development of coal mining in Chile. Back in the twenties, the British had considered employing Chilean coal in the Coquimbo smelters, and in 1835 Wheelwright had seen its possibilities for his steamship venture, but the first major effort in coal mining was made by a native Chilean, Don Matias Cousiño (1840). With the assistance of English engineers, mines were eventually developed at Lota, Lebu, Arauco, and Pachuco. Between 1840 and 1850 the Cousiño collieries at Lota sold some coal for copper smelting and for Wheelwright's steamships, but production exceeded demand with the result that

Cousiño gradually accumulated a stock of several thousand tons. In order to use this surplus he turned to manufacturing; a copper smelter was set up, and this was followed by a tile and firebrick works. The demand for Chilean coal increased after a special grate was invented for locomotives on the Chilean railways; previously it had been necessary to import British coal since the native product melted and clogged ordinary grates. By 1879 Cousiño's production ran about 800 tons a day, and he was employing a thousand miners at Lota alone. None of the other collieries operated on so large a scale: of the half million tons of coal produced annually in Chile, at least 50 percent came from the Cousiño mines.⁵⁸

DeRote was much impressed by the operations at Lota in the later fifties. In 1857 no less than seven steam engines were being used for pumping water from the mines. Production was increasing at an amazing rate: the total of 15,000 tons for 1854 had grown to 120,000 by 1858.⁵⁹

In the north copper was king. By the thirties the British had supplanted the native *habilitadores* by offering the *propietores* better terms; then, Lambert, Edwards, and others began to acquire actual ownership of the mines. Improvements in smelting methods included the introduction of the reverberatory furnace in 1842 and the use of coal instead of charcoal after 1850.⁶⁰ Urmeneta and Errazuriz at Guayacan had fourteen furnaces in 1861; Edwards had eight furnaces at Coquimbo, and Ovalle had seven more; at Serena Lambert had fourteen furnaces in operation.⁶¹ The old supremacy of Coquimbo had been broken after Wheelwright's development of the Copiapó-Caldera Railroad and the building of a dock and smelters at Caldera.⁶²

In 1851 Gilliss went up to Caldera and traveled over the new railroad with Wheelwright on a handcar. At this time much of the hauling on the road was done in flatcars pulled by oxen, and when Gilliss returned to Caldera he had a very narrow escape. For the journey back to the coast from Copiapó, he was given a handcar and two peons to operate

it. They had been warned of two up-trains from Caldera; these they duly avoided by taking the car off the tracks when the trains came along. At the top of the last steep grade—which would allow them to coast the remaining nine miles into Caldera—the peons and Gilliss disposed themselves comfortably and prepared to enjoy their long roll down the hill. It was growing dark, but there seemed no occasion for alarm since the track was now presumed to be clear. As they sped along (at nine or ten miles an hour), there suddenly loomed up before them a flatcar drawn by oxen and loaded with heavy steel rails. The peons sprang for their brakes, but they failed to avoid the whirling cranks of the handcar which promptly thumped one man on the head and the other in the eye. His peons *hors de combat*, Gilliss set the brakes and prepared himself for the inevitable collision. The oxen wisely stepped off the tracks, one to the right, and the other to the left, “so as to give us the full benefit of the projecting ends of the rails.” In the crash that followed Gilliss saw more stars than “in the meteoric shower of 1833,” but no one was seriously hurt. Within a short time the journey was resumed and safely completed.⁶³

Many North Americans and British, too, disliked the social climate of Chile; this was especially true of people like Miers or Gilliss or Mrs. Merwin who remained in the country only for a short time. Anglo-Saxons could not reconcile themselves to the way Chilean husbands treated their wives; the Chilean attitude was definitely continental and completely the reverse of that which prevailed in England or particularly in the United States. (This recalls the surprise of De Tocqueville at the equality enjoyed by North American women.) In Chile marriages were arranged, and girls were wedded at a very tender age, often to men much older than themselves. After marriage the Chilean husband appeared to ignore his wife: he went out in the evening by himself, leaving her at home to entertain her own friends. Gilliss remarked

that if one saw a man and a woman together on the streets after dark, the odds were against their being man and wife.

"Thirty years ago," said Mrs. Merwin, "the Chilenos welcomed all foreigners with overflowing hospitality, and with a primitive warmth and simplicity that was delightful. Such welcome is now seldom shown, except in remote places in the country."⁶⁴

It was becoming much more difficult to gain entrée to Chilean social circles. "If the stranger has neither letters nor acquaintances," remarked Gilliss, "and awaits courtesy from the male residents, it is probable he will lead a solitary life in Santiago."⁶⁵ The *Chilenas* were more friendly than their husbands, however, and they often took the initiative in inviting foreigners into their homes. The old customs of the *tertulia* still survived; if one saw a light shining from the windows of the *sala*, it was understood that the *señora* was receiving guests. Sunday visits were made in the afternoon, between the hours of two and four-thirty.

The manner of observing holidays and church feasts seemed strange to foreigners. As Gilliss said, there was no Santa Claus in Chile, and no Christmas as Anglo-Saxons knew it. A Chilean Christmas was more Christian and less pagan than in England or the United States; for the Chileans it was a day devoted solely to commemorating the birth of the Christ-child. The great national holidays were the *diez y ocho*, September 17 to 19, when the independence of Chile was celebrated. It was then that one saw parades and fairs and native games and the dancing of the *samacueca*—if one did not mind "the overpowering stench of garlic and the presence of innumerable fleas" which distinguished all Chileno crowds.⁶⁶

What annoyed the good DeRote more than anything else was the universal smoking habit:

"The South Americans are pleased to imitate the costumes, the manners and habits of Europe, and they are careful to include the charming and gracious habit of smoking. In Chile, as in Peru and Bolivia, everyone, large and small, rich

and poor, smokes at home, on the streets, on the promenades, in the gardens; they smoke in carriages, in drawing rooms, in ball rooms. At Lima the friars and priests smoke while clad in their vestments and surplices before the door of the convent or that of the church. The gentlemen smoke, in white gloves, while escorting ladies in evening clothes. The waiters march in smoking—and go out smoking, their cigars. Ladies find nothing better to do than to imitate their brothers, fathers, husbands, and as children take naturally to the habits of their parents, they demand—cigarettes. . . .

“In Chile, everyone smokes on getting up, on going to bed—during dinner, before and after the repast, and all day long. . . .

“They never ask a traveller when he arrives whether he is hungry or thirsty, but offer him a cigarette, as, in Germany or Holland, they offer him a pipe.

“Today, civilization progresses in America as elsewhere, and, by a refinement of good taste, the odor of the burning leaf is considered preferable to the scent of flowers.”⁶⁷

It was more or less true in Chile that “girls commence at thirteen, and bear annually until fifty,”⁶⁸ yet infant mortality was so high that there was no startling increase in the population. The vital statistics showed that for every person over seven years of age who died, deaths were recorded for two children under seven. One out of every ten children born in Chile was abandoned; even if the abandoned children were left in a foundling hospital, 50 percent of them failed to survive.⁶⁹

People wondered about the fate of democracy in Chile, too. In 1851 Chile had a population exceeding one million and the suffrage requirements were fairly liberal, yet only 19,562 voted in the presidential election of that year. Even though the number of eligible voters was unknown, the percentage of the electorate that failed to exercise its privilege must have been very large, since there were over 66,000 enrolled in the national guard and every member of the guard had the right to vote.⁷⁰

Earthquakes were so frequent that they seemed to be a part of the pattern of everyday life, yet they made the Chileans very nervous: the slightest shock threw the natives into a panic. Even foreigners got into the habit of remaining as near as possible to a door so that they might run into the street at the first shock; some people never closed their doors for fear they might become jammed and thus prevent escape. Although the consequences of an earthquake were often serious, amusing incidents were likely to occur. The Merwins found Valparaiso still chuckling over the story of the American consul in 1851 who had just returned to his lodgings after a formal dinner when he felt the initial shock of an earthquake. Snatching up his coat, the consul ran into the street with his medals and decorations shining bravely in the moonlight—but he had left his pantaloons behind!⁷¹

In the summer of 1852, when the Santiago-Valparaiso telegraph line had just been put into operation, Gilliss arranged to have the operators in the two cities report earthquake shocks as soon as they were felt. In this way he settled a long dispute as to whether shocks occurred simultaneously or traveled in waves from one area to another. The earthquake of August 10, 1852, was felt at the same moment in Valparaiso and Santiago.⁷²

The introduction of the telegraph calls to mind another advance in communication made in Chile in the lively fifties: the adoption of low postal rates in 1853, an idea borrowed from the United States. As a result of this change the volume of mail passing through Chile's one hundred and fifty post offices increased amazingly in a single year; cancellations rose from 195,000 in 1853 to 306,000 in 1854.⁷³ This was a far cry from the situation in the twenties when it had cost twenty-five cents to send a letter from Valparaiso to Santiago and when the system had been so unreliable that the big mercantile houses had employed their own messengers. The day had passed, too, when one was expected to call at the post office for his mail, or when "On the arrival of the bags at the post-office . . . an alphabetical list is made of the directions,

with the number affixed upon the letter, which list is placarded outside the office; and as persons ask for the numbers, so are the corresponding letters delivered upon payment of the postage: should the person to whom a letter is directed fail to pass the post-office and examine the list, it is likely to be thrown aside for a twelve-month, as at the end of the year a list of un-called-for letters is exhibited.”⁷⁴

Without a doubt Chile was improving, yet the sentiment of most Anglo-Saxons with regard to the country was much the same as that of Stevenson with regard to one of its inhabitants; “[She was] a young Indian girl of fresh nut-brown complexion, who would have been quite pretty had she been a bit cleaner.”⁷⁵

CHAPTER VIII

The City of the Kings

"Lima is the heaven of women, purgatory of men, and the hell of asses."
— *T. J. Hutchinson*¹

IN colonial times Peru was the heart of Spanish South America, and Lima, its capital, was not only an administrative nerve center but also the commercial metropolis of the west coast. During the last quarter of the eighteenth century, the increase in the volume of trade which was characteristic of Spanish America as a whole was especially noticeable in Peru. Although Lima imported more from the west coast and Buenos Ayres than she exported to those areas, heavy shipments of silver to Spain tipped the balance of trade in favor of Peru with the result that by 1800 Lima itself boasted a "commercial capital" of fifteen million dollars.²

Well aware of the value of Peruvian commerce and of the mineral riches of Peru, the British, North Americans, and other foreigners followed the progress of the revolt against Spain with the closest attention. Even before San Martín liberated Callao and Lima in 1821, the British had begun their activities in Peru; at least ten millions in gold and silver was carried away in British vessels before the fall of Lima,³ and General Miller complained bitterly that British merchants dealt as willingly with royalist as with patriot during this period.⁴ Captain Richard Cleveland, in the employ of John Jacob Astor, served the royalists well in 1819 and 1820: he operated a number of ships in the coastwise

trade which brought food to Callao and large profits to himself.⁵

The patriot successes in 1821 and the following years resulted in an exodus of the "old Spaniards" who had been the principal merchants in Peru. Taking with them their ready cash, they fled the country, and their places were taken principally by British merchants. The Robertsons and others, who already had mercantile establishments in Buenos Ayres or Valparaiso, now opened shop in Lima.⁶ By 1824 there were reported to be no less than twenty British commercial houses in the city, while North Americans, French, Dutch, and Germans were also in evidence.⁷

British manufactures enjoyed great popularity. "On entering a house in Lima, or in any other part of Peru that I visited, almost every object reminded me of England; the windows were glazed with English glass . . . the brass furniture and ornaments on the commodes, tables, chairs, &c. were English . . . the chintz or dimity hangings, the linen and cotton dresses of the females, and the cloth coats, cloaks, &c. of the men were all English: . . . the tables were covered either with plate or English earthenware, and English glass, knives, forks, &c.; and even the kitchen utensils, if of iron, were English; in fine, with very few exceptions, all was either of English or South American manufacture."⁸

It was not long, however, before supply exceeded demand. The market was glutted by the British dumping policy which had already ruined markets in the United States as well as in Brazil, Argentina, and Chile. At the end of 1826 the British consul in Lima reported the Peruvian commercial situation unfavorable. Unsettled conditions, shortages of mules and mercury, and an uncertain labor supply had so crippled mineral production that Peru could not pay for large imports from Britain. The sugar and wine industries, which might have bolstered Peruvian exports, were also on the decline because the emancipation of slaves had deprived them of their chief source of labor.⁹

The British had strong competitors for Peruvian trade, too. North American "domestics" were supplanting the native cottons (*tocuyos*) and rough baizes (*bayetas toscas*), and United States flour was imported in large quantities:

"Although wheat has been produced . . . in Peru, the quantity is wholly inadequate to the demand . . . Formerly the requisite supplies were obtained from Chile, but during the troubles of that country in 1823 and 4 the wheat produced scarcely equalled its consumption; and as the crops sometimes fail from blight, the North American found that he could introduce his flour to advantage into Peru. His machinery for drying flour, and his ability from the cheapness of wood to pack it in oak barrels, are a security against injury notwithstanding the distance of the voyage."¹⁰

The French and Dutch, though active, did not arouse as much apprehension in the British mercantile mind as did the North Americans. The commerce of both France and the Netherlands in the area appeared to suffer from "heavy expenses and bad management" as well as "carelessness" combined with "want of activity and intelligence."¹¹

The coastal trade of Peru was a lively one. It had developed during the colonial period and was now being conducted mostly in British ships: ". . . from Valparaiso, wheat, barley, beans, indian corn, cheese, and dried fruits of various kinds, such as almonds, raisins, nuts, etc., also dried beef and tallow. The same articles, with the addition of boards, planks, and heavy wood, come from Concepcion, Valdivia, and Chiloe. From Guayaquil there is an extensive trade to various ports in Chile, Peru, and Mexico; the exports are cacao, straw hats, cordage, planks, native tar, etc. From Huanchaco and Lambayeque, the ports of Trujillo and San Pedro, the exports are sugar, rice, beans, etc. From Pisco Peru is supplied with white brandies, some wine, etc. From California with tallow, and some salted beef; and Sonsonate and Costa Rica send to Peru and Chile, indigo, mats, sugar, etc."¹²

To this might be added the salt from Salinas near Huacho, where there was a small plain covered with a stratum of salt which was quarried in hundred-pound blocks and shipped to various parts of Peru and Chile.¹³

The methods of handling imported goods in Peru at this time are interesting. The British merchants acted as agents for manufacturers and exporters at home. They would sell "not less than a box of goods" to the native merchants who sold "by the piece"; in addition, there were the shopkeepers and the hawkers in the streets and plaza who sold in smaller quantities.¹⁴ The British merchants in Lima took a commission of 7½ percent on sales and exacted from the shipper other small charges for freight, storage, and port fees. Very often there was a *del credere* of 2½ percent in return for which the agent assumed the responsibility for remitting the value of a shipment to the exporter.¹⁵ This *ducroire*, as De-Rote calls it,¹⁶ was also customary in the fifties, although some agents had reduced their commissions on sales to 5 percent by that time.

In Peru, as elsewhere in Latin America, the chain of credit—with the exporter dealing through an agent, and the agent selling to a trader, and the trader selling in turn to a small dealer—was greatly extended and made the collection of mercantile debts very difficult. "The petty dealer receives an advance of goods, the price charged to him is proportioned to the risk, he pays a little and receives more goods, and a constant running account with him is kept open. He sometimes gambles away the whole of the value of the goods. . . . He often sells his first purchase at a loss, and with the proceeds buys goods of another merchant which promise more benefit to him, and when pressed for payment he often resorts to the expedient of borrowing from Peter to pay Paul, or declares his inability without apprehension, as no law exists to compel the debtor to pay his debts, or to give security for their liquidation."¹⁷

Through the uncertainty of the late twenties and early

thirties, the British held on doggedly at Lima, and their superior resources eventually enabled them to outdistance their competitors. Wilkes noted in the late thirties that, while Peru offered "a large market for our domestic cottons," the importation of North American flour had decreased because of adequate supplies of both flour and wheat that came to Peru from Chile.¹⁸ The early British hope that the mines might balance a trade which would otherwise be unfavorable to Peru was never fully realized, but the Peruvians did discover a new and profitable source of revenue, guano.

Although the first guano was shipped to Europe in the thirties, boom times for the industry did not come until about 1845. More than two million tons were exported in the next fifteen years; by 1875 the total was reckoned in the neighborhood of twenty million tons. When one calculates the value of these shipments at prices ranging from \$50 to \$75 a ton, it is not hard to see what guano meant to Peru's export balance.

Thus, the third quarter of the nineteenth century was a prosperous period in Peru, even though the government was squandering its revenues in graft and railroads. Trade was in a flourishing state. In the middle fifties the British had no less than thirteen large mercantile establishments in Lima, the French four, the Germans five, North Americans three, and the Italians three.¹⁹ The British William Gibbs Company exported guano to all European countries except France and Spain and also dealt in British manufactures; with its seat in London this major house had branches at Arequipa, Tacna, and Valparaiso as well as in Lima. The other British establishments dealt in English and European manufactures; some were also in the China trade. A North American company, Messrs. Alsop, had interests in California and China and connections in New York, Liverpool, and Hamburg, and with the Barings in London. Allen and Company and Rolin, Thorne and Company represented Boston firms.

The visitor to Lima ordinarily approached the city from

its port, Callao. "By no means pleasant," with its damp, dirty winter and dusty summer, Callao boasted one of the best harbors on the Pacific coast.²⁰ The mole at Callao in the twenties consisted of a sunken ship filled with stone,²¹ although the port facilities were gradually modernized with the passing years. In the late thirties Wilkes could see that improvements had been made since his first visit to the town in 1821;²² then, by the sixties, major changes were under way. The yards and shops of the Pacific Steam Navigation Company were extensive and modern, the company built a large iron dock, a floating dock was imported from Glasgow, and a new mole was built of cement blocks.²³

Ships were unloaded at Callao by means of lighters, just as they were in most South American ports. The harbor swarmed with boatmen of all nationalities, Frenchmen, Swedes, Genoese, Chinese, and natives, who clamored for the patronage of passengers who wished to go ashore. The mole was piled high with Chilean wheat, Italia wine from Pisco in conical clay jars, cinchona bark, blocks of salt from Huacho, sugar from Cañete, silver bars from Pasco, boxes of manufactures from Europe, and lumber from the Pacific Northwest.²⁴

Lima is six miles from Callao, but its altitude is about five hundred feet above sea level. Thus, the problem of transportation between the two towns was not an easy one. The senior O'Higgins, when viceroy of Peru, had initiated the construction of a good road to connect Lima with Callao, but his ambitious scheme was not translated into a reality for many years. After two miles of the new road had been completed, the work was halted by the revolution, and even in the thirties Wilkes complained that the road from Callao to Lima was in a ruinous state.²⁵ An omnibus service linked the two towns in the succeeding decade and eventually a North American company constructed a macadamized road from the port up to Lima (1865).²⁶

In the meantime British and Peruvian capital had been employed for the building of an interurban railroad, the

dream of Byam a few years earlier.²⁷ Railroad service began in 1851. For about fifty cents passengers might ride up to Lima in the European carriages drawn by a wheezy locomotive; it was an hour's journey by train and probably could have been performed much more quickly on horseback.²⁸

The City of the Kings, surrounded by a wall so extensive that it would have required eighty thousand men to defend it, was impressive from a distance, although the traveler usually found a closer view disillusioning.²⁹ Brand called Lima the "dirtiest town in South America,"³⁰ and Darwin thought it "filthy" and "decadent."³¹ This was probably, as Juan and Ulloa had noted a century earlier, "on account of the numberless droves of mules continually passing thro' Lima, and cover the streets with their dung, which being soon dried by the sun and the wind, turns to a nauseous dust, scarce supportable to those who walk on foot."³²

Stevenson's description of the houses of Lima is essentially the same as that of Juan and Ulloa seventy-five years before or that of Squier fifty years later.³³ Dwellings were low, rarely exceeding two stories. "The outer walls of the houses are generally built of adobes as far as the first floor, and the division walls are always formed of canes, plastered over on each side; this is called *quincha*: the upper story is made first of a framework of wood; canes are afterwards nailed or lashed with leather thongs on each side the frame-work; they are then plastered over, and the walls are called *baja-reque*. These additions so considerably increase their bulk, that they seem to be composed of very solid materials. Canes bound together and covered with clay are substituted also for pillars, as well as other architectural ornaments, some of which being well executed, and coloured like stone, a stranger at first sight easily supposes them to be built of the materials they are intended to imitate. The roofs being flat are constructed of rafters laid across, and covered with cane, or cane mats, with a layer of clay sufficient to intercept the rays of the sun, and to guard against the fogs."³⁴

The roof was used as a kind of attic. It was often the last

resting place of dead pets or served as a chicken coop. The buzzards, those unofficial members of the department of sanitation (a department that did not, of course, exist), also congregated on the housetops.³⁵ This was not all. "One of the inconveniences of Lima, during the summer, is that of being tormented with fleas and bugs . . . Their prodigious increase is partly owing to the dust of that dung, with which the streets are continually covered; and partly to the flatness of the roofs, where the same dust, wafted thither by the winds, produce these troublesome insects, which are continually dropping thro' the crevisses of the boards into the apartments."³⁶

Brand thought the men of Lima were on a par with their houses: their hands were dirty, they failed to shave regularly, smoked constantly, and spat on the floor.³⁷ Although the ladies when they appeared in public cut a fine figure (as we shall see later), they were less glamorous at home.

"In doors, the ladies are very untidy; in the morning I have found them, what in England would be called very slovenly and dirty, lolling on a sofa, with a morning gown carelessly put on, and loosely tied round the waist, half open behind showing a petticoat none of the cleanest; between the opening of that also sometimes the bare back might be seen. They never wear stays, and their front hair would be in paper, without cap or handkerchief over their head, hanging down behind in one or two long tails."³⁸

Whatever the *Limenas* may have appeared to be in the privacy of their homes, it was generally conceded by foreigners that, when dressed for the street, they were unusually attractive. Handsome, expensive, and haughty, bedecked with jewels and sweetly scented with flowers and perfume, the ladies of Lima rarely failed to make a favorable impression. Their sheer silk stockings and distinctive footwear were intended to emphasize the beauty of their limbs and their tiny feet.³⁹ They were contemptuous of the Spanish ladies and the Englishwomen whose feet seemed enormous in comparison:

the "English paw," *una pataza inglesa*, was a byword among them in the nineteenth century.⁴⁰

Caldcleugh⁴¹ noted with approval that the *Limenas* bathed several times a day, but he was shocked when he discovered that they smoked cigars and chewed tobacco. On this latter point, he seems to have misunderstood the purpose of the *limpion* to which the *Limenas* attributed their beautiful teeth, for Juan and Ulloa relate that "At Lima the ladies, and indeed women of all ranks have a very ancient custom, namely, the carrying in their mouths a Limpion, or cleanser, of tobacco. The first intention of this was to keep the teeth clean, as the name itself intimates. These Limpions are small rolls of tobacco, four inches in length, and nine lines in diameter, and tied with a thread, which they untwist as the Limpion wastes. One end of this they put into their mouth, and after chewing it for some time, rub the teeth with it, and thus keep them always clean and white."⁴²

Still another source of misunderstanding was the traditional costume, the *saya y manto*:

"A most singular and disgusting dress is worn by the females of Lima in the streets . . . It consists of a petticoat of silk or bombazine, laid in fine plates and drawn together underneath with silk; they are so thickly laid that the dress is elastic, and defines the figure as nicely as possible; this is confined in a binding, just large enough to hook round the waist, and reaches to the ancles; they are generally black or brown, but the lower class wear them of lighter colours, much ornamented with lace and pearls. A black silk mantle, or thick elastic gauze, is then tied round the waist, and drawn up behind over the head like a hood or friar's cassack, concealing the arms, and so held by the hand as to completely hide every part of the face except one eye. It is worn as our pelisses, over the ordinary dress, and is not only inelegant, but extremely indelicate."⁴³

Without a doubt, the *saya y manto* made an impression, especially when the wearer implemented her natural charms

with "false protuberances in the rear of her person,"⁴⁴ for the *saya* "conforms to the shape, whether natural or artificial, from the waist down."⁴⁵

In such a costume the ladies of Lima were accustomed to venture forth alone in the evening to attend the theater or to "crash" private parties to which they had not been invited. By hiding their faces with the *manto*, their identity could not be determined even by their own husbands, with whom they often flirted. After nightfall these *tapadas*, or ladies incognito, were to be seen in large numbers, frequently going about in pairs or groups.⁴⁶

The natural suspicion that such behavior aroused in foreigners was apparently unfounded in most cases. The *Limenas* seldom became involved in scandal. While almost instinctively flirtatious, they were fundamentally innocent and naive. What could you make of people who embraced you in greeting or farewell but thought it indelicate to shake hands?⁴⁷

As in other Spanish American cities, the theater at Lima occupied an important place. The building itself was "ugly" in appearance; inside there was a pit, a gallery, and three tiers of boxes. The boxes were rented by the month or by the year. The men, who monopolized the pit, smoked only between acts, while the ladies in the gallery smoked continuously.⁴⁸ Tschudi, who attended the opera in Lima in the late forties, thought the stage small, the scenery indifferent, and the performances wretched.⁴⁹ The current operas were the works of those favorites Bellini, Donizetti, and Rossini. The Italian company which gave the performances had one good singer, but the orchestra seemed "defective." Tschudi endured a "mutilated *Norma*" and a "curtailed *Semiramide*."⁵⁰ Twenty years later Hutchinson went to see an Italian named Rossi do a play of Shakespeare.⁵¹

Foreigners who visited Lima in the twenties were shocked by the brutality of Peruvian bullfights and contrasted the Peruvian practices most unfavorably with the more humane

bull baiting with which the Chileans were amusing themselves.⁵² At Lima the bull was first tormented with darts and fireworks and then killed slowly.⁵³ On the other hand, Stevenson says, "Scarcely any person speaks of the Spanish diversion of bull fighting without pretending to be shocked; but the same person will dilate on a boxing match with every symptom of delight. I have seen Englishmen shudder and sympathize with a horse wounded by a bull, who would have been delighted to have seen Spring 'darken one of Langan's peepers.'"⁵⁴

About mid-century a popular diversion was a trip to the seaside town of Chorillos, nine miles away, where one could bathe in the ocean in the daytime and gamble at night.⁵⁵ After a railroad was built in the fifties, the traffic on the Lima-Chorillos line ran as high as one million passengers a year.⁵⁶

There were less sophisticated and expensive amusements, however, which had been standard since colonial days. Dancing, singing, card games, chess, blind man's buff were noted by the travelers of the twenties.⁵⁷ Coffee houses, with billiard tables, had existed in the city since 1771, and there were tennis courts by 1800.⁵⁸

Even after the abolition of the Inquisition—that institution described by Stevenson as one crucifix, two candlesticks, and three blockheads⁵⁹—Lima continued to be a stronghold of the church. The piety of the city in the twenties is well illustrated by a striking passage in Proctor:

"While the *alameda* thus formed the gayest and most bustling scene, with glittering equippages, prancing horses, and splendid uniforms, suddenly the deep cathedral bell was heard, and all in a moment was silent: it was *oration* time. The prancing steed was curbed, the half-uttered compliment to some kind female was left unfinished, the haughty soldier doffed his shining helmet, and the whole concourse was for a few minutes engaged in prayer. The world seemed to stand still: the bells at length struck up a merry peal, and *buenas*

noches being, as usual, said by every one to his neighbor, the world moved on again in the same manner as before."⁶⁰

And there was probably much point in Colton's sneer that "To die regularly in Lima the patient must be admonished of his approaching end by his physician, and receive extreme unction from his priest."⁶¹

While one might expect to find Spanish-American whites and *mestizos*, and full-blood Indians in Lima, the rather large Negro and mulatto population sometimes occasioned surprise. Miller found the mulattoes engaged in trades, as shoemakers, tailors, and barbers;⁶² Proctor reported that the barber-surgeons were expert at shaving, bleeding, and tooth pulling.⁶³ After Peruvian independence was assured, the foreign element in Lima increased greatly. The French appeared in their conventional role as tailors, hairdressers, jewelers, and milliners,⁶⁴ while the British and North Americans were merchants and mining specialists. Cornish miners left behind them a number of light complexioned, curly-haired children known in Peru as *Los Inglesitos*.⁶⁵ Chinese imported as workmen for the sugar and guano industries in the fifties and sixties drifted to Lima and set up shop as vendors of Oriental goods.⁶⁶

In the early seventies Lima was very much the "modern" city with its wide streets and gas lights, and people had been talking about the possibility of putting in a line of horse cars for some time.⁶⁷ Contemporary photographs of the *plaza* and the cathedral are most impressive, and the new National Exhibition Palace with its fine grounds covered almost fifty acres.⁶⁸ Newspapers and the telegraph were already an old story in Lima.⁶⁹ What staggered Hutchinson most, of all the wonders he saw in Lima, was the clock of Major Ruiz:

"He spent six years in its manufacture. Besides the dial for indicating the hours are six others to show the days of the week, the months, phases of the moon, historical data, equinoxes, years, and centuries. It likewise marks the leap-year. It presents historical pictures by its revolutions. There are

thirteen bodies of wheels, requiring to be wound up at different intervals; those of the hours every twelve days; those of the years and centuries need to be wound up only once in thirty-two years. Attached to the clock by its machinery is a barrel-organ, which, regulated by a spring, plays only two airs, the Peruvian National Hymn, and the more popular air, the 'Dos de Mayo,' or 2nd of May."¹⁰

CHAPTER IX

The Guano Age

“ . . . and now I no longer care for birds.”

—A. J. Duffield¹

DURING the third quarter of the nineteenth century, in the period that Duffield so delicately called “The Age of Manure,” both the coast and the hinterland of Peru were described many times by foreigners. From these accounts it is possible to see that, while the cities were modernized and there was great activity in the guano and nitrate areas, other parts of Peru had not been greatly altered since colonial times. There is a great contrast between the liveliness of Lima and the slow, unchanging tempo of life in remote Pozuzo.

The northern port of Paita was usually the first Peruvian town visited by travelers coming down from Panama. The rendezvous of North American whalers, Paita had one principal asset, a good harbor. Situated in a desert, where rain almost never fell, the town had to bring its drinking water on donkey-back from a point more than twenty miles away. Paita was small; its population may have reached two thousand by 1850. Because of the intense heat the houses were little more than wicker baskets of cane with thatched roofs, and the people lounged in grass hammocks just as they did in the intolerable climate of Guayaquil. When Squier saw Paita in the seventies, the only structure in town that bore a look of permanence was the iron customs house.²

Southward from Paita toward Callao the voyage had been a difficult one in the days of sailing ships because of adverse winds and currents. As Juan and Ulloa reported:

"At all times this voyage is of a most disagreeable and fatiguing length . . . a ship is very fortunate to perform it in forty or fifty days . . . They relate here a story to this purpose, that the master of a merchant ship, who had been lately married in Paita, took his wife on board with him, in order to carry her to Callao. In the vessel she was delivered of a son, and before the ship reached Callao, the boy could read distinctly."³

In the age of steam passage was more regular and much swifter, but travelers often complained of the habits of those Peruvians who were their fellow passengers. The Peruvians on board took possession of the ship—even of the quarter-deck, where they spread their beds. Hutchinson was annoyed by promiscuous expectoration on the deck, and also remarked, ". . . much care is needed, as the ship is rolling, not to come in contact with any of the chamber commodities which each family has with them."⁴

This not too cryptic statement is supplemented by F. J. Stevenson, who says, "I now saw amongst the travelling gear of this aristocratic young gentleman a certain familiar but unsightly utensil, useful enough under ordinary domestic conditions, but about the last article that any European traveller would think of encumbering himself with.

"I am told that it is quite usual for the well-to-do Peruvian and Bolivian travellers to carry these things about with them (made either of valuable French porcelain or of silver) in all their journeyings on land or by the West Coast steamers, and to make a great parade of these unlovely evidences of their wealth and social standing. This young man had two of them, made apparently of solid silver."⁵

Peabody's voyage homeward from Valparaiso to Panama was more pleasant, but he seems to have been much attracted by a young Latin American bride whose husband (Peabody

thought) mistreated her. Furthermore, he made his first acquaintance with a fascinating new game, "piloting round discs of lead, sewed up in canvas, at a board marked out in squares and numbered."⁶

It was probably just as well that Peabody was headed for home. A prolonged exposure to shuffleboard and ravishing *señoritas* in distress might have warped his staid New England outlook and made him dissatisfied with his native town of Salem.

Ships en route from Paita to Callao sometimes stopped at Huanchaco, the port of Truxillo. Here the dangerous surf made a landing extremely difficult; a longboat was almost unmanageable, and the safest craft in the Huanchaco harbor were the native *balsas*, known locally as *caballitos* (little horses). These were made of bundles of reeds, 18 to 25 feet long, rising in a peak fore and aft; the paddler, equipped with a long double oar (kayak style), rode astride the middle of the craft and looked as if he were mounted on a sea horse. The *caballitos* had been used by the natives of Huanchaco since pre-Inca times; in the nineteenth century they were employed for landing both passengers and freight.⁷

Truxillo itself was situated in one of the rare oases on Peru's west coast. Since colonial times the inhabitants had cultivated cereals, sugar, cotton, and fruits. It was one of the major coastal towns; Proctor called it "a little Lima."⁸ It was at Truxillo that Squier made the acquaintance of the prefect whose fine house was decorated with French lithographs showing nude females "in voluptuous attitudes" which were given a semblance of modesty by covering certain portions with green tissue paper.⁹

In the province of Chancay, north of Lima, and to the south in the province of Cañete, the Peruvian sugar industry flourished in the eighteenth and nineteenth centuries. In 1781 Ruiz¹⁰ visited a busy *hacienda* in Chancay:

"Sugar cane is ground day and night with four, and sometimes six, changes of oxen, and every day they get 30 to 40

loaves of sugar of quality superior to that of any of the neighboring haciendas. This hacienda needs about 150 negroes more than it has, so that the work in the mills may not stop, as happens frequently for lack of men, and because the negroes are liable to be sick there. Because of the great humidity and excessive heat many die and others are crippled for life and unable to do even the simplest manual labor."

Although the ox-powered *trapiche* was still used in many parts of Peru in the middle of the nineteenth century, steam mills had been a familiar sight for several decades in the progressive and rich Cañete sugar area. The names of Unanue and O'Higgins, great landholding families, were even yet associated with Cañete sugar in the fifties, and Hutchinson found an Englishman named Swayne in possession of one of the older estates where "modern methods" were yielding considerable profit; Swayne was using steam plows to cultivate his ten thousand acres and a steam engine to grind cane worth two million dollars a year.¹¹ In the sixties North American capital was being invested in Peruvian sugar.¹²

South of Cañete lay the fertile valleys of Pisco and Nasca; from the former came fine red "Italia" wine and from the latter a good white wine. Pisco was also famous for its brandy, which lowered "the vital powers" of foreigners when consumed in "indiscriminate quantities."¹³ Pisco produced oranges, too: Mrs. Merwin reported that three hundred could be bought for two dollars.¹⁴ The raising of cotton in Pisco and Yca (Nasca) was greatly stimulated by the Civil War in the United States. Our consular agents in Peru made numerous reports on this subject in the sixties.¹⁵ Tschudi's friend, Don Domingo Elias, was a large landowner in both the Pisco and Nasca areas; Clements Markham found him expanding his cotton acreage in 1861.¹⁶

Near Pisco lay the fabulous Chincha Islands, the source of Peru's wealth in guano. This rich fertilizer had been used by the Indians long before the Spaniards came to Peru, and it was employed by the Spaniards themselves in the colonial

period; its greatest use was in the provinces of Chancay, Cañete, Pisco, and Yca. Ruiz says:

"The natives use two handfuls for each [maize] plant as they plant it, and two more when it grows and they clear away the weeds. In the whole province [Chancay] more than 60,000 fanegas of huano are consumed per year, and each weighs 8 arrobas and is worth 4 rs. Each one of the vessels carries from 600 to 1,000 fanegas. The pilots maintain, and apparently with good reason, that huano is the true manure of birds called huanos, and of others that sleep at night on those small islands situated at 5 leagues from Pisco and near Cañete and Arica."¹⁷

In the middle nineteenth century, when the exploitation of guano was at its height, it was no uncommon sight to observe anywhere from one to two hundred vessels loading guano at the Chincha Islands.¹⁸ About one half of the annual exports of guano went to France and Great Britain; the rest was sent to Germany, Belgium, Spain, and China.¹⁹ Peabody estimated the deposits in 1859 as about 60 feet deep. The guano was dug out with spades and carted down to the shore in wheelbarrows.²⁰ Duffield remarked, "No hell has ever been conceived by the Hebrew, the Irish, the Italian, or even the Scotch mind for appeasing the anger and satisfying the vengeance of their awful gods, that can be equalled in the fierceness of its heat, the horror of its stink, and the damnation of those compelled to labour there, to a deposit of guano when being shovelled into ships."²¹

In order to ease the labor shortage that followed the full emancipation of the Negroes in the fifties, Chinese coolies were imported to work on the sugar *haciendas* and in the guano pits. Duffield estimated that sixty-five thousand Chinese were brought to Peru, and the United States consul was ashamed that citizens of his country were engaged in the coolie trade.²² Many Chinese, as we have seen, soon found their way to Lima and other towns; Squier stayed at a Chinese *fonda* (very bad) in Truxillo.²³ One cannot resist quot-

ing the comment on the New Testament made to Duffield by a puzzled Chinese friend: it was "not a cooking book, not a song book, nor a book about women, but seemed to be a pot of many things not well boiled."²⁴

Far south of the Chincha Islands and Pisco the traveler came to Islay and Mollendo, which served as the ocean outlets of inland Arequipa. In 1860 Baxley sneered at the inhabitants of Islay for their dream of a railroad to the interior,²⁵ but a decade later Henry Meiggs actually built a railroad which connected the neighboring port of Mollendo with Arequipa. The operation of this line was no simple matter: water had to be distilled for the boilers of the locomotives, and of the four locomotives on the road, two were used to carry water for the other pair, which hauled passengers and freight.²⁶ Squier noted the dangers of the trip, and said that while Indians could ride on this road without paying any fare they preferred to walk.²⁷ Meiggs employed American locomotives of which Hutchinson remarked that they did not whistle but "they may be said to roar like the continuous bellow of a lion or a bull."²⁸

A phenomenon to be observed at Peruvian ports from Quilca to Arica was the sealskin *balsa* constructed of inflated skins and reed mats and propelled by double-bladed oars.²⁹ As late as 1868 F. J. Stevenson found them in use at Quilca:

"The rafts are wooden-framed and decked and are rendered buoyant by means of numerous inflated sealskins . . . They are towed out to the vessels by steam launches, or in their absence, as in our case, by rowing boats assisted by the powerful oars or sweeps of the raftsmen.

" . . . [they] serve in place of barges for loading and unloading ships in the open roadstead, especially further south on the Chilean coast, where they are much used for loading the valuable nitrate of soda fertilizer for shipment."³⁰

One of the main ports for the shipment of guano and nitrates was Arica.³¹ When F. J. Stevenson arrived there in 1868, he found a thriving town with a population of seven or

eight thousand. Its foreign population was large for its size; the principal merchants appeared to be British and Germans, while the shopkeepers were French, Italians, and natives.³² One of the earliest Peruvian railroads, dating from the middle fifties, connected Arica with the inland town of Tacna about forty miles away. Stevenson says of Tacna:

"Walking up from the station to the hotel to which I had been directed, I was struck by the comparatively picturesque look of the town. Here as in Arica, the one-storied adobe houses have high-pitched roofs, the gables toward the street; but there are also in the principal streets many two-storied houses, the lower story always built of thick, solid adobe, and the upper either of wood or of 'chinchá,' a framework of timber covered with matting of a kind of coarse rush, smeared over with a plaster of mud, chopped straw and manure."³³

Squier, who came to Tacna a few years later, remarked that the town was built of wood from Chile and California, and that it reminded him of a line from Jedidiah Morse about Albany: "a city of one thousand houses and ten thousand inhabitants, all standing with their gable ends to the street."³⁴

It was in Tacna that Squier had great difficulty in securing a mattress to take along on his trip to the interior. Unable to buy a mattress, he decided to have one made. The tailor whom he approached on the subject insisted that Squier should furnish the materials, so Squier went to one place for wool, another for ticking, and another for leather. When he returned to the tailor with his purchases, he was greeted with a growl, "But where are the needles and thread?"³⁵

Stevenson was in Tacna in August 1868 when the whole area was subjected to a major earthquake. Damage was light in Tacna, but two hundred people perished in Arequipa, and at Arica a tidal wave added to the horrors of the quake. When Stevenson reached Arica the next day:

"I found a bank of wreckage 10 to 15 feet high, composed

mostly of fragments of wrecked ships, broken-up wooden houses, doors, window-frames, smashed furniture—amongst which I noticed a cradle, and near it a battered locomotive and the crumpled-up remains of a railway truck and carriages . . . on the sands, between this extraordinary bank of wreckage and the sea, scattered about amongst the paraffin candles and the dead fishes, were innumerable smaller and lighter articles of domestic use, and great numbers of boxes and packing cases . . . amongst them cases of English ale in bottles, a few of which were still unopened, to my infinite relief and refreshment.

“ . . . I found a number of beautiful cases of surgical instruments, and artificial limbs—also hundreds of naked dolls, their silly heads and shoulders, arms and legs, sticking up out of the sand in which they were half buried in a way that would have been laughable and amusing but for the sobering effect of the body of a fair-haired man that was rolling about in the surf close by—a gruesome sight, the face horribly disfigured, nose and ears gone, the effect of 24 hours’ abrasion in the wet sand.”⁸⁶

In the wreckage, too, Stevenson found a large colored linen map of Bolivia, something which he had been unable to buy for his trip to the interior. This he carefully buried in the sand for future reference. Then came the surprise. “I now noticed a group of looters engaged in breaking open a large packing-case were curiously habited, their ponchos instead of hanging in more or less graceful folds all round their bodies, projecting stiffly and awkwardly from their shoulders, and on closer inspection I was surprised to find that every man of them was wearing a map of Bolivia, torn from its roller, as a poncho, with the printed, coloured and varnished side outward.”⁸⁷

As late as 1871 Arica still bore the marks of this disaster. Hutchinson was strongly impressed with its “desolate aspect” from the sea, and a closer view upon landing did not modify his original impressions.⁸⁸

South of Arica was the Peruvian province of Tarapacá, the center of nitrate production. The chief port of Tarapacá, Iquique, had had only about one hundred people in 1826, but it had grown into a small city by 1860.³⁹ By this latter date there were more than fifty nitrate *oficinas* within the province; the largest, La Noria, lay a few miles east of Iquique.

Between 1830 and 1860 Peruvian nitrate production increased a hundredfold. As the supply of guano began to be depleted, the government began to look to nitrates as an alternative source of revenue. It will be recalled that the desire of the Peruvians to gain a nitrate monopoly ultimately led to a serious war with Chile (War of the Pacific, 1879).

Although the preparation of nitrate for shipment was more complicated than in the case of guano, the technical knowledge required was not great. The *caliche* (nitrate-bearing earth layer) was undermined with a crowbar and then blasted loose with an explosive made from nitrate and sulphur. After the *caliche* had been broken up into large lumps, it was conveyed on muleback to the refinery. There the *caliche* was semi-pulverized and put into an iron boiler. Water was added. After boiling for seven or eight hours, the nitrate was held in solution while other matter dropped to the bottom of the boiler. The nitrate solution, when allowed to drain off, soon crystallized in the sun. This *salitre* (nitrate of soda) might average 97 percent pure. It was put into bags and sent to the coast for shipment.⁴⁰

Quite different from a voyage along the coast of Peru was a journey into the back country. The coast was living in the modern era, whereas the middle hinterland was still in the colonial period, and the remote areas were much as they had been in pre-Inca days. Few roads were more than trails, and the traveler rode slowly along on a plodding mule, nursing a feeble hope that his *arriero* actually did know the way to the next village.

From Lima to Tarma, or Cerro de Pasco, or to Cuzco the

roads were well-defined and much traveled. Food could be purchased in the numerous villages along the way, guides were reliable, and mules could ordinarily be found. Herndon⁴¹ estimated that each of his mules cost seventy-five cents a day (for their hire) and an additional twelve and a half cents for fodder. Although the llama was used as a beast of burden, it could carry only about 130 pounds, or half a mule-load.⁴² Thus, the mule was all-important in the Andes, and these hard-working beasts were often rated as to their carrying capacities: in Bolivia, for example, the strongest mules were called *pianeras* because they could transport a whole piano on their backs.⁴³

Travel in Peru presented a variety of experience. The heat of the coastal valleys, the cold and the mountain sickness encountered on the heights, the magnificent scenery, the picturesque towns, Indian ruins, robber bands, suspension bridges (like the fearsome one across the Apurimac), and the strange people one encountered made any trip a thing to remember. On the road were the mule trains with their belled *madrinas*, the Indian shepherds with their sheep or flocks of llamas, and small parties of travelers:

"The ladies and their maids are fresh-looking, and manage their horses with ease. A negress rode a man's saddle, and wore a flat straw-hat, trimmed with fancy coloured riband. The riding skirt is dispensed with under the bloomer style; she wore very long orange-coloured silk stockings and on the heel of a small and neat black shoe were buckled her woman's spurs. . . . her hat was placed on one side of her plaited wool, and [she had] a large cigar between white teeth."⁴⁴

Sometimes the postman went by, preceded by an *arriero* blowing a horn. The postman himself wore a scarlet cloak and carried a red and white flag on a pole; his letters were stowed in small hide boxes strapped on the back of his mule.⁴⁵ The Wilkes party was startled to encounter a man on horseback carrying a pine board before him; wood was scarce in Peru.⁴⁶

As evening came one stopped at a village and bargained for supper and lodging. Eggs, fowls, *chupe* (like *cazuela* without the chicken), and *chuño* (dehydrated potatoes) were staple foods.⁴⁷ Occasionally quinoa seeds cooked with cheese or boiled with milk and pimento might be found.⁴⁸ The cook *du jour* might be like the old lady at Yangas who "set about preparing their supper, apparently from Christian motives, for during the process she crossed herself several times."⁴⁹

And then to bed, perchance to sleep, although Hutchinson claimed that the six hours the traveler might spend in bed were occupied in:

"One of sleeping,
Two of scratching,
Three of hunting,
None of catching."⁵⁰

At Obrajillo, on the road to Pasco, the Wilkes party awoke in the morning to see "A town officer . . . strutting with a spear about the public square, calling all the women to come and sweep it. They soon made their appearance, and were not long in creating a prodigious dust. They swept the dust up into small heaps; then taking their coarse shawls from their shoulders, they spread them upon the ground and put the dust they had collected into them, to be carried away."⁵¹

On the heights south of Huancavelica Gibbon came upon Indian girls selling *chupe* and *chicha*. They sat on the *chupe* to keep it warm, he says, and he lost his taste for *chicha* after observing the old women chewing with "their worn millstones" the maize kernels which were to be fermented.⁵²

The most considerable inland town north of Lima was Pasco, the silver-mining center of colonial times. With a population exceeding ten thousand, Pasco was none too prosperous after the revolution, but it was picturesque. It reminded Smyth and Lowe of the towns in south Wales. The houses of mud and stone were whitewashed and some of them had glazed windows; many homes were heated by grates on which coal was burned—an English innovation. The town

had two plazas, one for the market and the other for the cathedral. Actually the town was divided into three districts, each with a separate priest and church, and the miners who inhabited any one district were traditionally hostile to the miners who lived in the other two; they often engaged in street fights. The streets were so muddy that people had to wear wooden clogs three inches thick. Moreover, many of the small mines had their mouths right in the middle of the streets so that it was dangerous to venture forth on a dark night.⁵³

In 1813 the merchant princes of the Philippine Company, Abadia and Arismendi, had engaged the great British engineer, Trevethick, to furnish steam engines and machinery for the Pasco mines. Four stationary engines of thirty horsepower each were shipped out to Peru as well as other very expensive machinery, and Trevethick himself arrived about 1819. It was then found that there was no wood to be used as fuel, although the problem was solved by the lucky discovery of a deposit of "slate coal" in the neighborhood. Then came the revolution; Abadia and Arismendi, who were royalists, were ruined, and the engines were destroyed or allowed to rust. Later the Pasco-Peruvian Company, one of those formed in England just before the crash of 1826, had tried to drain the mines and commence operations again (1825-27); there had also been another revival in 1829-33. When Herndon visited Pasco, he found renewed activity with new British machinery being imported and operated under British supervision. On the whole, however, colonial methods of mining and smelting were still in use.⁵⁴

From Pasco, Herndon went north to Huanuco of which he says: "Huanuco is one of the most ancient cities in Peru. It is prettily situated on the left bank of the Huanuco or Hualaga river. . . . The houses are built of adobe, with tile roofs, and almost all have large gardens attached to them. . . . The gardens are filled with vegetables and fruit trees, and make delightful places of recreation during the warmer parts of the day."⁵⁵

Huanuco boasted a college with about one hundred students. A landed endowment yielded revenues to the school of \$7500 a year, and the students had the use of a "fine set of chemical and other philosophical apparatus," the gift of a former prefect of the department.⁵⁶

It was also at Huanuco that Herndon encountered once more the enthusiastic intendent of Pozuzo, who spent a whole evening talking about his favorite project, a road from Pasco direct to Pozuzo. "When he went away, Colonel Luzar asked me what I called that science in my country that put people to sleep; and when I told him that it was animal magnetism, he said that the old man was capital magnetizer, for he had been to sleep an hour."⁵⁷

Herndon's object in coming to Huanuco was to follow the Huallaga River down to its junction with the Marañon. At Huanuco the Huallaga was not navigable; thus, it was necessary to follow the river on land down to the head of canoe navigation, Tingo Maria, about eighty miles away.

On the way Herndon "saw for the first time, the *luciernago*, or firefly of this country. It is, unlike ours, a species of beetle, carrying two white lights in its eyes (or, rather, in the places where the eyes of insects generally are,) and a red light between the scales of the belly—so that it reminded me something of the ocean steamers. It has the power of softening the light of the eyes until it becomes very faint; but upon irritating it, by passing the finger over the eyes, the light becomes very bright and sparkling. They are sometimes carried to Lima, (enclosed in an apartment cut into a sugar-cane,) where the ladies, at balls or theatres, put them in their hair for ornament."⁵⁸

Canoes on the Huallaga were hollowed out of a single log, about forty feet long and two and a half feet wide. They carried a crew of five or six. The bowman (*puntero*) watched for rocks and sunken trees, while the boat was guided at the stern by the *popero*, who stood on a small platform. The

bogas (paddlers) stood up to paddle with one foot in the bottom of the boat and one on the gunwale.⁵⁹

Herndon's departure from Tingo Maria was made the occasion for a gala celebration in which most of the residents participated (they numbered less than two hundred). "At night we had a ball at the governor's house. The *alcalde*, who was a trump, produced his fiddle; another had a rude sort of guitar, or banjo; and under the excitement of his music, and the *aguardiente* of the governor, who had had his cane ground in anticipation of our arrival, we danced till eleven o'clock. The custom of the dance requires that a gentleman should choose a lady and dance with her, in the middle of the floor, till she gives over, (the company around clapping their hands in time to the music, and cheering the dancers with *vivas* at any particular display of agility or spirit in the dance.) He then presents his partner with a glass of grog, leads her to a seat, and chooses another. When he tires there is a general drink, and the lady has the choice. The *Senor Commandante* was in considerable request; and a fat old lady, who would not dance with anybody else, nearly killed me."⁶⁰

It took Herndon about a month to reach the junction of the Huallaga and the Marañon and four months to arrive at the Peruvian frontier town of Tabatinga on the border of Brazil where we shall meet him again. For the moment, however, we may leave Herndon on the banks of the Huallaga, bitterly regretting his first meal of roast monkey:

"The monkey, as regards toughness, was monkey still; but the liver, of which I ate nearly the whole, was tender and good. Jocko, however, had his revenge, for I nearly perished of nightmare. Some devil, with arms as nervous as the monkey's, had me by the throat, and, staring on me with his cold, cruel eye, expressed his determination to hold on to the death. I thought it hard to die by the grasp of this fiend on the banks of the strange river, and so early in my course;

and upon making a desperate effort, and shaking him off, I found that I had forgotten to take off my cravat, which was choking me within an inch of my life."⁶¹

Somewhat earlier, before going up to Pasco, Herndon had separated from his partner, Gibbon, at Tarma. While Herndon proceeded north to Pasco and Huanuco, Gibbon turned south toward Huancavelica and Cuzco and eventually penetrated Bolivia, from whence he followed the Madeira system down to the Amazon.

In comparison with the country that both Herndon and Gibbon were to see later, Tarma was a beautiful spot with its mountain-ringed valley, its fruit trees and green pastures, and the "waving fields of barley" that extended well up the mountain sides. Here they visited the splendid farm of General Otero, a friend of Judge Prevost, where there was an abundance of fruits and flowers and maize and a stable of fine horses. The place reminded Herndon "of one of our best kept Virginia farms, where the owner had inherited the homestead of his father, and was in easy circumstances."⁶²

The climate of Tarma was reputed to be so healthy that, although there were twenty thousand people in the vicinity, no doctor could make his living there. In order to provide even occasional medical assistance, the government had been forced to lay a tax on spirits and divert revenues from the Oroya toll bridge. Nevertheless, says Herndon, "I am satisfied, though there are so few diseases, that a good-looking young graduate of medicine, who would go there with money enough to buy him a horse, might readily marry a pretty girl of influential family, and soon get a practice that would enrich him in ten years. I afterwards knew a young American at Cerro Pasco, who, although not a graduate, and I believe scarcely a student of medicine, was in high repute as a doctor, and had as much practice as he could attend to."⁶³

As Gibbon traveled southward from Tarma, he found himself in a farming and sheep raising country. The shepherds

wore woollen stockings "long enough for trousers," and shipped their good merino wool to Lima. The farmers planted potatoes, barley, and maize; the kernels of the latter were of four colors; red, white, yellow, and blue. The tax-gatherers with their silver-headed canes were to be seen everywhere during the harvesting season, and, as Gibbon rode along, he noted that people here threshed with oxen and horses just as they did in Chile and Argentina. Often he met mule trains carrying bags of quicksilver from Huancavelica to Pasco.⁶⁴

Huancavelica itself, a great source of mercury in the colonial period, was less prosperous in the nineteenth century; Gibbon reported only about one hundred and twenty men, women, and children employed in the mines and said that most of Peru's quicksilver was now imported from England in iron jars. Gibbon remembered Huancavelica for its good coffee and ice cream and its little college where physics, chemistry, and mineralogy were taught.⁶⁵

We should like to know more about "Mr. Sage from New Haven" and his circus with its Mexican clown whose track Gibbon soon crossed, and then there is that tantalizing line, "We saw an elephant travelling on the table lands of Bolivia."⁶⁶ He does add that the elephant was not allowed to cross the Apurimac bridge and that the keeper, "a Yankee," had to swim the beast over the stream. Herndon was preceded down the Amazon by an American circus company, and there are also references to European troupes on the west coast of South America in this period.⁶⁷ A major mystery surrounds "Mr. Handy," who had exhibited an elephant and two camels in Central America about 1840 and then departed for a tour of South America.⁶⁸

One came face to face with antiquity at Cuzco, the "Holy City" of the Incas, where the houses, despite their red roof tiles, were mostly constructed of huge stones from the pre-Spanish past. And over the town brooded the grim Inca fortress of Sacsahuaman.

Cuzco, with a population of twenty thousand, had a news-

paper, a college, and mail delivery from Lima twice a week. In the plaza were sold pottery, fruits, vegetables, cottons, woolens, and "Texan hats." Every Thursday the dog-catchers turned out and clubbed all the stray canines to be found in the streets. People asked Gibbon about Fenimore Cooper, and "women, I find, are much interested in steamboat navigation and the productions of other countries."⁶⁹

Near Puno on Lake Titicaca, where the courtyards were paved with round pebbles and the knuckle bones of llamas,⁷⁰ was the famous Manto silver mine which General John T. O'Brien and John Begg had tried to work with "modern" methods after the revolution. O'Brien had joined San Martín in 1816 and had fought in the Chilean and Peruvian campaigns, while Begg was a merchant of Valparaiso, a contemporary of Caldcleugh.⁷¹ The partners spared no expense to make the mine a success; British machinery and steam engines were purchased and transported across the Andes to Puno, and there were many technical difficulties to overcome:

"Water flowed out after the miner had gone in some distance, and a dam was built at the mouth of the mine, which backed it up. Iron canal boats navigated the stream, and brought out cargoes of rich silver ore; as the miner travelled on, he found more use for his boat. The canal was locked, and the water dammed up by the gates; some distance farther back, when a second and a third gate were built, the stream became smaller, and the vein rose much above the level of the entrance to the head of navigation. Pushing on into the bowels of the Andes, the miner built a railroad of iron from the canal to the head of the mine, continuing to lengthen it after him. When the train came down loaded with metal, it was embarked and floated out by boats with lights burning at the bow and stern, as the canal is winding and narrow, with just room enough for the boat to pass between the rocks."⁷²

In the end, the project failed; Gibbon found the equipment lying idle and rusting in 1851.

O'Brien had once imported the materials for a brig to sail on Lake Titicaca, and people were talking about a steamboat for the great lake in 1846, but most of the travel upon its waters even in the seventies was in the insecure reed *balsas* of the natives, which were little more than rafts with square sails.⁷³ Squier and his friends converted a fifteen-foot row-boat into a schooner-rigged sailer. It was necessary to raise the sides of the vessel, but wood was scarce, and the ultimate solution was to break up some packing boxes. Thus, the magnificent craft was finally launched and sailed about the lake with a fine assortment of labels upon its sides: "Fragile! This Side Up! Bitters X.S.P. 9."⁷⁴

From Puno the traveler's road ran south along the shores of the lake to Desaguadero on the frontier between Peru and Bolivia. Here Gibbon caught two fish, "designed for Professor Agassiz," and prepared to cross into Bolivia.

"After breakfast the governor walked to the river Desaguadero with us. This river is the southeastern boundary line of Peru. We were detained a short time at the bridge to allow one hundred unloaded llamas to pass from Bolivia to Peru. Rush balsas are secured side by side, bridge fashion, and a quantity of rushes piled upon them. They are kept in place by large rope cables fastened on each side of the river to a stone foundation. The distance from the shore of Peru to the Bolivian side is fifty yards."⁷⁵

In this region, the home of a civilization older than that of the Incas, man lived at the barest level of subsistence. The land was barren and cold; barley would not ripen, maize was uncertain, and the potatoes were small and bitter. One felt that he had reached not the end of Peru, but the end of the world.

". . . we have spread before us a region unlike any we have ever seen, and which seems to be lifted above the rest of the world in spirit as well as in fact, looking down upon it coldly and calmly like the winter stars, sharing none of its sympathies, and disturbed by none of its alarms; the silent,

wondering vicuna gazing at us with its large liquid eyes; the gliding llama; and the condor circling high up in the air . . . the absence of forests; the white clouds surging up from the plains of Brazil, only to be precipitated and dissipated by the snowy barriers which they cannot pass; the clear metallic blue of the sky; the painful silence—all impress the traveller with the feeling that he is no longer in the world he has known before . . . Not an unfitting region this for the development of an original civilization, like that which carved its memorials in massive stones, and left them on the plain of Tiahuanuco, and of which no tradition remains, except that they are the work of the giants of old, who reared them in a single night.”¹⁶

CHAPTER X

Bolivia

"This is the land for chicha; the ravines seem to be flooded with it." — *Lieutenant Lardner Gibbon, USN*¹

"The traveller also will not despise a nip of cachaça when the wind blows coldly." — *E. D. Mathews*²

FROM Desaguadero at the Peruvian border to La Paz, the capital of Bolivia, the journey was short—not more than two days by mule. The route lay across the cold, dusty highlands on which the only point of interest was the dead city of Tiahuanaco. The cyclopean masonry and the great extent of this ancient metropolis were a source of wonder not only to the traveler, but also to the natives, whose little village was dwarfed by the spreading ruin of pre-Inca splendor. Yet Gibbon wondered whether life had been easier at the height of Tiahuanaco's glory, for he noted: "At the gateway, near a Catholic church, was standing two heavy stone idols, with their hands crossed on their navels, as though there had been—as is now—a scarcity of food."³

When Squier visited Tiahuanaco he found the inhabitants of the village celebrating simultaneously the feast of Corpus Christi and the pagan Chuño (Potato) Festival. The whole appeared to him a drunken orgy in which the statues of Christ and many saints were surrounded in the streets by Indians playing small drums and Andean pipes as old as ancient Tiahuanaco itself. The *cura* of the village, red-eyed and incoherent, offered to guide Squier on a treasure hunt through the ruins of Tiahuanaco the next day.⁴

Old Tiahuanaco was more than a dead city; it was also a city of the dead, for the inhabitants of the village used it as a cemetery. Squier discovered a pack of wild dogs feasting on the body of a child which they had uncovered in its shallow grave. The *cura* was undisturbed when Squier informed him of the incident. The good father merely shrugged and said, "What does it matter? They have been baptized, and all Indians are brutes at the best."⁵

In the ruins Squier found a specter, "a very old man, withered, wrinkled, and bent with the weight of years," who was reputed to be over one hundred years old and who had been a participant in the rebellion of Tupac Amarú in 1780.

"His hair was scant and gray, his eyes rheumy, and his face disfigured by a great quid of coca that he carried in one cheek. He wore tattered pantaloons of coarse native cloth, made from the fleece of the llama, kept together by thongs; his poncho was old and ragged; and the long woollen cap, that was pulled low over his forehead, was greasy from use and stiff with dirt. He had an earthen vessel containing water suspended from his waist, besides a pouch of skin containing coca, and a little gourd of unslaked lime. In his hand he carried a small double-edged stone-cutter's pick or hammer. He paid us no perceptible attention, but wandered about deliberately among the blocks of cut stone that strew the ground, and finally selected one of a kind of white tufa, which he rolled slowly and with many a pause up to the very foot of the great monolith, then seated himself on the ground, placed it between his legs, and after preparing a new quid of coca, began to work on the stone, apparently with the purpose of cutting it in halves. He worked at it all day . . . Just before returning to the village . . . I prevailed on one of our arrieros . . . to ask him what was his occupation. He got the curt answer from the old man, that he was 'cutting out a cross.' Every morning he was at the ruins before us . . . All day he pecked away at the stone between his knees . . . After a time we came to look upon him as an integral

part of the monuments, and should have missed him as much as the great monolith itself."⁶

After a long, monotonous journey across the plateau, which seemed endless, the traveler was always startled by the sudden appearance of La Paz far below in a deep cañon whose rim had been attained without warning. The description of this phenomenon by Temple is one of the best of many:

"Fancy yourself travelling leisurely along upon a high table or upon any other plane that you may like better. This is bounded by a huge mountainous rampart, in which, be it remembered, is one of the greatest, grandest mountains on the globe . . . These mountains appear to rise out of the plain on which you are riding, and your expectation is that you must actually arrive at them, for no obstacle is to be seen between you and them.

"Whilst you are musing on the how and the where your journey is to end, the distance being already performed, which with your disposition to rest, increases your impatience to discover the town, you arrive unexpectedly at the edge of the plain, and behold a vast gulf at your feet, in the bottom of which appears a town very regularly built with packs of cards. The first *coup d'oeil* of La Paz conveys precisely this idea; the red-tiled roofs and the white fronts of the houses answering admirably for hearts and diamonds, and the smoked roofs and the dingy mud walls of the Indian *rancios*, equally well for spades and clubs. Through this fairy town may be faintly seen, winding with occasional interruptions, a silver thread marked with specks of frothy white, which upon approaching, proves to be a mountain torrent, leaping from rock to rock, and sweeping through the valley. In casting a glance farther round, you perceive squares and patches of every shade of green and yellow, which to a European, is perhaps the most striking part of the interesting scene. Corn, and fruit, and vegetables, and crops of every kind, may be seen in all their stages."⁷

Temple had great difficulty in finding lodging in La Paz in 1826, and Gibbon in 1852 remarked that the town had no hotels.⁸ If the traveler had no letter of introduction to some resident at whose house he might hope to be put up for the night, he might well expect to sleep in the open. This was a strange situation to discover in a city which was the commercial center of Bolivia. La Paz had a theater, a museum, a library, book stores, stone fountains, well-paved streets, a beautiful alameda, and lovely women who wore new French bonnets; there was an abundance of British, French, and German manufactured goods; the foreign population was relatively large—but hotels were lacking.

The Bolivian mining towns of Oruro and Potosí showed evidence of decline in the nineteenth century. The population of Oruro shrank from nearly forty thousand in 1725 to about one tenth of that figure in 1850; in like manner Potosí had a population of one hundred and sixty thousand in 1650 and sixteen thousand in 1850.⁹ General Miller remarked that of the five thousand mine levels in the great Cerro de Potosí, only fifty were being worked in the twenties.¹⁰ Andrews found his first glimpse of Potosí repulsive:

"From a declivity on the south-east side of the hill the city first breaks upon the view, but with no very inviting aspect . . . The turrets and edifices rise heavily and ominously, while not a bush or streak of green enlivens the neighborhood of the ugly and crime-stained capital. It looks like the city of a prince of sin, strange, desert, solitary, mysterious, a place of evil enchantment."¹¹

There was plenty of food in Potosí, although most of it had to be brought from more fertile regions of Bolivia; Miller found no scarcity of English ale and porter when he lived there after the revolution.¹² Temple complained that butter was brought to Potosí in bladders; it sold for five or six shillings a pound, and its quality would have fitted it for axle grease in England.¹³

The main public buildings of Potosí consisted of the *cabildo*

(town hall), which also housed the jail, the mint (an ugly stone building with antiquated machinery), and a cathedral—"such an unsightly mass of stone I never before beheld."¹⁴ Then, too, "In the middle of the same square, a sample of architecture worthy of the architect of the cathedral has lately been erected. I supposed it to be a shot-manufactory, and my servant, whom I had occasion to send in that direction, inquired 'If his way was not past the big chimney?' We were both mistaken: it is a national trophy in honour of the Liberator Simon Bolivar."¹⁵

This reminds one of Squier's remark about the cathedral in Guayaquil which "must have been devised by a lunatic architect during an attack of severe indigestion."¹⁶

Far more impressive than the public buildings of Potosí were the native girls. Not only did they have good teeth and "countenances full of animation," but also their necks ("meaning that part of the person which ladies blushing term 'bosom'") were of "delightful amplitude." Moreover, "the breadth across the hips" was "prodigious."¹⁷ This was confirmed by Andrews,¹⁸ who said that "bolsters applied to the hips of a Potosian girl would supply pillows complete for Jenny and Taffy's matrimonial couch."

Of Chuquisaca, later called Sucre, we do not hear much save that its women were charming and its fleas very active.¹⁹ In the seventies it had no manufacturing and little commerce, but it did boast "an American bar for soda ice-cream drinks and other curiously compounded and consoling beverages."²⁰ Thus, we may conclude that Chuquisaca had not fallen too far behind in her progress toward "civilization."

Most travelers found Cochabamba, "the granary of Bolivia," infinitely preferable to other Bolivian cities. The valley produced wheat, maize, and barley; apples, pears, and quinces were also grown. These products were exported to the mining areas and to the cacao-growing region of Yungas.

Although foreign manufactures were imported, the remoteness of Cochabamba had promoted a certain self-sufficiency.

In the city were made cotton and woolen cloths, and hats of vicuna wool. There were, in greater numbers in Cochabamba than elsewhere in Bolivia, blacksmiths, carpenters, cabinet makers, tinsmiths, and jewelers; when Gibbon was there, there was even a young man who had invented a piano.²¹

In the market of Cochabamba were to be seen cane chairs from the United States, and iron bedsteads from France. Indians sold meat, fruit, shoes, and beads; candle makers and tailors abounded. Gibbon says: "We were present when a merchant unpacked some boxes of French wines and sweet oil. Every fourth bottle was broken . . . French articles excite the fancy of the people very much, such as work-boxes, cigar cases, fancy lace. The women sometimes buy, for the sake of getting the pretty paper boxes the French put their goods in. Very common glassware sells well, but costly articles are more or less injured by the journey, and find few purchasers here."²²

The city of Cochabamba had a population of more than thirty thousand in 1850. Gibbon thought the place had an air of respectability with its neatly painted houses, regular street, and fine plaza.²³ There was a cathedral and a very fine palace which Gibbon considered superior to the one at Lima.

The *tertulia* (evening party) flourished in Cochabamba. Mathews says that after dinner the ladies were accustomed to take up a strategic position in their rocking chairs to await the arrival of gentlemen who "dropped in promiscuously" for the purpose of providing the ladies with small talk:

"To see a circle of ten or a dozen people rocking away, some vigorously, some lackadaisically, while endeavoring to keep up a conversation, has a very funny look; but the motion of the chairs is so pleasant that one soon falls in with the custom and rocks as hard as any of the natives."²⁴

The ladies of Cochabamba were not addicted to smoking, but they did take snuff.²⁵ Nevertheless, their personal appearance was generally up to the Bolivian standard, and they, like other Spanish American ladies, were fond of "pique-

niques," as Weddell calls them.²⁶ A special kind of *chupe* for picnics was made from shredded chicken, minced dried crayfish, peas, and hard-boiled eggs drenched in boiled milk.²⁷ As a matter of fact, the drinking of milk was rather more common in Bolivia than in some other Spanish American countries. Gibbon notes that in La Paz "The degree of politeness and pleasantness of manner is remarkable, while the milk of cow kindness is passed around in large glasses. The fresh complexioned Spanish beauty rides up, tosses off a bumper, calls to her indolent escort in her sweet language, and off she goes again, followed by the eye of a fat John Bull, luxuriating over his glass, with a broad brimmed hat on one side of his head, and a walking stick under his arm."²⁸

The problem of an outlet to the sea was an important one right from the beginning of Bolivia's independent history. Arica was the chief port of entry for Bolivian imports in the twenties, but it lay in Peruvian territory and the Peruvians refused a Bolivian offer to buy it.²⁹ As a result, although Arica retained a large share of the Bolivian trade, the port of Cobija was developed farther south, and, as we have already seen, there was great interest in developing the Vermejo River as an outlet to the Atlantic coast.³⁰ In the fifties a surprising amount of goods was coming up the Amazon to the territory watered by the Madeira and Mamoré systems: Pennsylvania iron, North American chisels, and Massachusetts cottons were observed by Gibbon in that area; there were many natives like that Indian woman "with 'Lowell' on her petticoat."³¹ From Tucumán and Salta many thousands of mules, horses, and cattle annually crossed the Argentine-Bolivian border bound for Tarija and Potosí.³²

Nevertheless, the bulk of Bolivian trade was via Arica and Cobija in the fifties. Several great mercantile houses of Lima and Valparaíso maintained branches in Tacna and Arica to handle the Bolivian imports. Consuls or vice-consuls of Great Britain, France, Hamburg, Chile, Sardinia, and the United States were resident in these towns.³³ The largest

single item of import in Bolivia was cloth; *bayetas* were just as likely now to come from Manchester or Halifax as they were to be homemade. In addition, the British and Germans were sending their iron and hardware and the French their porcelain.⁸⁴

On the east side of the Andes in both Peru and Bolivia, two important industries flourished, the gathering of coca leaves and of cinchona bark. Everywhere in the highlands the Indians chewed the coca leaf; each man carried his bag of leaves and a small gourd filled with lime. A small wire pin attached to the stopper of the gourd was used to transfer the lime to the leaf to give it a better flavor. Gibbon described a coca plantation in Peru:

"The seed is planted in rows like maize. In two years the bush, five or six feet high, is full grown, bearing bright green leaves, two inches long, with white blossoms, and scarlet berries. The women and boys are now gathering the ripe leaves, while the men are clearing the fields of weeds. The gathering takes place three times a year, in cotton bags. The leaf is spread out in the sun on mats and dried."⁸⁵

The use of quinine (the "bark"), which became known to Europeans in the seventeenth century, led to considerable export activity after the revolution and ultimately resulted in the transfer of cinchona trees to plantations in the East Indies. Weddell, one of Castlenau's party, went to Bolivia in 1847; he obtained cinchona seeds which he took back to the Jardin des Plantes in Paris. Some of his plants were later taken to Java.⁸⁶ Then in 1859-60 Sir Clements Markham, working with Richard Spruce and others, began to seek the transfer of new seeds to the Far East, a design that was soon accomplished.⁸⁷ As a result, of course, the South American cinchona industry gradually declined.

In the fifties, however, Gibbon found the Bolivians gathering great quantities of the bark in the Yungas region. It was packed in rawhide bales after being wrapped in cotton;

each bale weighed 150 pounds. It then had to be carried on muleback to Arica.

"At Arica it is shipped, and carried around Cape Horn, to the chemists in the United States and Europe, where it is manufactured, bottled, and some of it reshipped and sold in the apothecary stores of La Paz to those who enter the province of Yungas, where the disease for which it is intended as a specific frequently prevails. The woodsman pays for one ounce of quinine the same price he sold one quintal of bark for at the tree."³⁸

In May 1852, about ten months after parting with Hern-
don at Tarma, Gibbon came to the Brazilian border and
prepared to leave Bolivia on his long journey to the Amazon.
He parted sadly with his Peruvian muleteer, José, and with
his faithful mule, Rose, of whom he remarked, "The horse
may be driven into danger by the rider; with the spur a horse
may be made to break his neck over a rickety mountain
bridge; he is man's favorite; is stabled, fed, combed, and
watered, in health; when sick he has a doctor. But the jack-
ass will not cross a dangerous place; whip him, he hangs
down his head, lays back his long ears, and lets fly both heels
at whoever attempts to force him. He will turn round and
bite; in this he shows a higher order of intelligence than the
horse. Man beats the jack; uses him all day, and at night
turns him out on the road-side to feed upon thistles, and to
find drink where he can."³⁹

With Gibbon we shall leave Bolivia as "Respectfully tak-
ing off our hats to the gigantic Andes, we push on in our little
canoe."⁴⁰

CHAPTER XI

Rio de Janeiro

"Rio de Janeiro, like but few other cities, is at once the commercial emporium and the political capital of its nation."
—*Rev. Daniel P. Kidder*¹

THE approach to Rio was exciting and full of promise. If one sailed from Europe, Cape Frio was ordinarily the first landfall after leaving Teneriffe, and the voyager's pleasure at the sight of land after a month at sea was further heightened by the knowledge that Rio was only twelve hours away. It seemed no time at all before the vessel turned from the westerly course followed after rounding Cape Frio and headed north into the narrow sea lane between the granite masses of the Sugar Loaf and the hill of Santa Cruz. The entrance passed, the magnificence of the harbor defied immediate comprehension. It had only one fault—it was too large. The major axis of the Bay of Rio de Janeiro, which runs north and south, is almost twenty miles long; a minor axis drawn from the city of Rio de Janeiro on the western side of the bay across the Praia Grande on the eastern side would extend over two miles—and the bay is much wider farther north.

From the deck of a vessel entering the bay the city of Rio de Janeiro had an attractive, even imposing, appearance. The white, stuccoed houses with their red roof tiles were "in happy contrast with the deep green of the foliage"² of the surrounding hills, but the pleasant illusion thus formed by distance was rapidly dispelled as the traveler approached the shore in a ship's boat. The aroma from the public slaughter-

house, the garbage on the beach, the smell of fried sardines and pork, and the odors inevitable in a city which lacked "sewers, sinks, and privies" were separately, and in combination, overpowering.³ Then came the impact of narrow streets, crowded with Negroes, black faces and savage songs, and an unintelligible babble of Portuguese and African dialects.⁴

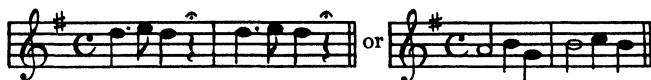
With manpower abundant and cheap, transportation remained in an extremely primitive state in Rio for many decades. The "carriage" of the city was an old-fashioned chaise drawn by mules, but even this antediluvian vehicle was rare in the colonial period: in 1808 only a half dozen could be found to grace the procession celebrating the queen's birthday. Most people rode in sedan chairs carried by slaves. In the late thirties omnibuses (which reminded Kidder of Broadway⁵) were introduced, and North American carriage manufacturers began to discover a market in Brazil, although the mule-drawn *carro* and the sedan chair were still seen in the streets as late as 1850.⁶

Freight transport went back to an age when the wheel was unknown. Goods were carried on the heads, backs, or shoulders of the Negroes. Heavy items—barrels of wine, boxes, bales—were slung on poles which rested upon the shoulders of the porters, while a single slave could carry a 160-pound bag of coffee on his head.⁷ By the fifties clumsy wheeled trucks, pushed or pulled by groups of Negroes, were occasionally observed in the dock area, but Mrs. Agassiz reported in 1865 that "One sees the most cumbersome furniture . . . pianos and the like, and the heaviest trunks or barrels . . . moving about the streets on the heads of the negroes. The result of this is that their limbs often become crippled, and it is common to see negroes in the prime of life who are quite crooked and maimed, and can hardly walk about without a stick to lean upon."⁸

It was startling to the newcomer to encounter the troops of coffee carriers, ten or twenty at a time, trotting through the streets behind their leaders: "As one hand is sufficient to

steady the load, several of them frequently carry musical instruments in the other, resembling childrens' rattle-like boxes; these they shake to the double-quick time of some wild Ethiopian ditty, which they all join in singing as they run."⁹

Commodore Wilkes set down the notes for some of the coffee carriers' songs and added that half the men carried the melody while others kept up "a kind of hum on the common chord."¹⁰



and another



Although the streets of Rio were narrow and lacked sidewalks, most of them were quite straight, except for the Rua Direita (Straight Street), which was wide and crooked; granite blocks were used for paving, and the streets sloped down from the sides toward the middle, through which ran a channel or gutter for waste water. The Rua Direita was the Wall Street of Rio where the principal business houses were located; it was intersected at right angles by the Rua Ouvidor, which contained the best shops. There in the twenties Walsh noted a fine selection of European merchandise: Manchester shawls, handkerchiefs, cottons, calicoes, and shoes.¹¹ Caldcleugh was impressed by the amethysts, tourmalines, topazes, and aquamarines—all cheaper than in London—displayed in the jewelry shops.¹² Plate glass adorned store windows by the thirties, and in the early fifties Stewart commented that the shops rivaled those of Broadway in a display of "fancy goods" of British, French, and German manufacture along with jewelry, "art," and engravings.¹³ The enthusiasm of the foreigner for the excellence of the shops was tempered by the discovery that some of them devoted certain days to auctioning off slaves.

Gas was not manufactured in Rio until 1851; before that time the streets were well lighted by oil lamps. Kidder says, "The streets of few cities are better lighted than those of Rio. Throughout the bounds of the municipality large lamps are arranged at given distances from each other, not upon posts permanently, but with certain iron fixtures, by which they are lowered for cleaning and lighting. Oil is universally used, gases not having as yet been introduced. Four large wicks, blazing on the respective sides of a highly polished metallic reflector of quadrangular form, cause each lamp to throw a splendid light upon all surrounding objects."¹⁴

"Rio is a city without chimneys, and strikes one as a regiment of soldiers without caps," remarked Colton in 1845,¹⁵ and Ewbank saw "not a paneled front door, stoop, knocker, or bell-pull, and many windows without glass."¹⁶ Most houses were made of granite; their outer walls were constructed of small irregular stones cemented together and covered with white or colored stucco.¹⁷ In the center of the city the first floors were usually given over to shops, while the inhabitants occupied the upper stories as living quarters; balconies screened with wooden lattice painted green projected from the upper windows.¹⁸ The compact setting of the houses and the narrowness of the streets is well illustrated by a striking passage in one of the Robertson letters:

"The streets there . . . are very narrow, and the spouts by which the water is carried off the roofs of the houses, project on either side so as nearly to meet each other in the middle of the street. The result is, that on occasions of very heavy rain, the waters from these spouts meet, and form, by their junction, arches of crystal as it were, along the whole line of street. These liquid arches as I passed under them, were lit up and burnished by the vivid lightning, and the whole city looked as if it were the abode of genii, with canopies of transparent crystal, and illuminations of electric fire."¹⁹

Rio had a scarcity of "inns and boarding houses." Spix and

von Martius mention an Italian inn, and a decade later Webster knew of two French hotels.²⁰ In the thirties and forties there were French and Italian hotels "with restaurants and rooms to rent" at which the foreigners stayed, but there were not more than ten inns to accommodate native Brazilians. People who came in from the provinces stayed with friends or rented a room and "ate out." Commercial firms owned by foreigners maintained a table for their clerks and guests, while foreigners who came to reside in Rio for any length of time rented or bought houses in the suburbs.²¹ According to Colton (1845): "Of the hotels in Rio the best is the Pharoux, an extensive establishment under Parisian arrangements, and evincing a great want of cleanliness."²²

This "great want of cleanliness" was in some respects typical of any abode in Rio. The lack of effective sanitation has already been mentioned. Luccock complained that "Cloacina has no altar erected to her in Rio, and a sort of *pot de chambre* is substituted for her temple."²³ Three decades later the goddess was still without honor in Rio; it was "neither safe nor pleasant" to walk in the streets after ten o'clock at night,²⁴ nor were conditions likely to improve until Cloacina followed the suggestion of Colton that she "ought to visit the place and order her altars underground, where they belong, instead of having them transported on the heads of negroes, under the shadows of night and sending up their exhalations, which are enough to make the man in the moon hold up his nose."²⁵

As the capital city of an empire after 1808, Rio acquired numerous public buildings. The old palace, the customs house, the exchange, the mint, the treasury, the theater, and the National Museum were located in the heart of the city, while many hospitals, schools, gardens, and the winter palace (São Cristóvão) were located in the suburbs. All goods were required to go through the customs house, and the inefficiency of the arrangements there of which Luccock and early traders complained was soon eliminated; the customs house

was enlarged, its staff was increased, and operations were systematized. Even in the forties, however, goods had to be brought from vessels in the bay to the customs house by lighters; furthermore, this could be done only between nine in the morning and two in the afternoon. We can well believe Kidder, who says, "Consequent upon such arrangements, the utmost activity is required to remove the goods dispatched at the custom-house, and to embark those productions of the country that are daily required in the transactions of a vast commercial emporium."²⁶

Not far from the customs house was the post office where the distribution of mail was conducted just as Miers had found it in Chile, although some large commercial houses paid an annual fee to have their foreign mail delivered to them. The rest of the foreign mail was thrown into a pile. Anyone expecting a letter was allowed to search the lot and to pick out mail addressed to himself and his friends.²⁷

A number of excursions were usually made by visitors to the city southward toward Botafogo. A short drive through Catete brought one to the orange groves (Larangeiras) at the foot of the Corcovado where the colored laundresses of Rio repaired to perform their functions. Farther on, west of Botafogo and behind the Corcovado, was the Botanical Garden with its innumerable trees and plants and its long avenue formed by a double row of eighty-foot palm trees. With an early start to take advantage of a cool morning, the ascent of the Corcovado itself might be made; the effort was rewarded by a beautiful panoramic view of the city and the bay. Coming down the mountain, one could follow the line of the aqueduct back to the city. The aqueduct, built in the eighteenth century, was itself worth seeing; providing water for four fountains in Rio, it carried over three hundred thousand gallons of water into the town every day.²⁸ A favorite excursion to the northwest was to the waterfalls of Tijuca or to the Bay of Boa Vista and the grounds of the imperial palace at São Christovão.

Sightseers in Rio usually found the scenery more impressive than the museum, the library, and the theater. In the twenties visitors to the museum carried away the memory of a few Egyptian mummies and several ornithological curiosities including a stuffed swan and a robin; two decades later Ewbank thought the museum strong in zoology and ornithology, but Agassiz in the sixties called it antiquated and said that a better collection of fishes could be made any morning down at the market.²⁹ The National Library, arranged and conducted much like the British Museum (although on a much smaller scale), was undoubtedly the best in Brazil. In the early twenties it contained classics, history, and theological books, and it was greatly expanded in the years that followed; it had around eighty thousand volumes by 1850. The library opened early in the morning and closed about six o'clock; in its periodical room were city and provincial newspapers, as well as European magazines. Agassiz found the library "fairly well supplied with books in all departments of learning."³⁰

Luccock thought the theater at Rio small, but Brand says, "The interior of the house is very elegant, consisting of four tiers of boxes on each side of the emperor's, which occupies the whole front of the theatre, excepting four small boxes just above it, and it was certainly most superbly fitted up, with chandeliers, pier glasses, tables, chairs, &c. having all the appearance of an elegant drawing-room; and being quite open in front with the exception of a light gilt railing, they were quite exposed to the full view of the audience."³¹

As far as the quality of the dramatic fare was concerned, however, there was universal agreement over a long period of years. Luccock condemned as poor the scenery, plays, and actors, although he admitted that a serious attempt at realism was made: when, for example, the script called for a decapitation, a headless corpse was shown with blood bubbling up from the neck.³² By 1815 the French ballet and the Italian opera had arrived in Rio, and it became customary

to alternate the opera with Portuguese dramas at the theater. Spix and von Martius thought the opera "very imperfect as regards singers and orchestra," while Henderson called the orchestra "tolerable, but the performers indifferent."⁸³ The brief visit to Rio of Mr. and Mrs. Southby with their troop of equine artists was apparently a welcome change in the line of entertainment; their clown pleased the Brazilians, and Mrs. Southby was extremely good on the tightrope.⁸⁴ The Southby triumph did not entirely kill the opera; a few years later Ruschenberger heard parts of Rossini's *L'Italiana in Algeri*—in moments when the prompter was not outshouting the performers.⁸⁵ Prince Adalbert in 1842 liked "the mulatto ladies of the ballet," those "Venuses not exactly of a European tint" noted by Caldcleugh. The brilliant lights of the theater, provided by wax candles in bell glasses, pleased the prince, too, but it perturbed him a little to see the boulevards of Paris (in *Louissette*) adorned with palms and banana trees.⁸⁶

Serious music fared much better than the opera or the drama in Brazil. A favorite pupil of Haydn, the Chevalier Neukomm, was composer to the royal chapel in the days before independence, and the orchestra and the chorus at the chapel, under the eye of Prince Pedro (who sometimes conducted), were very good.⁸⁷ Caldcleugh went often to the chapel to enjoy the music; his opinion was more favorable than that of Andrews who says, "learning that the Emperor Don Pedro would hear religious service at the Royal Chapel, I attended, and listened to some fine sacred music, and to the unnatural warblings of sundry castrati, who were kept for the vocal edification of this pious court."⁸⁸

There were many musicians in Rio, both white and black, who could be heard playing in the streets upon flute and drum, clarinet and violin, horn and guitar; this was especially true at the time of one of the many religious festivals when small bands paraded the streets. Of all the musicians the barbers were reputed to be the most proficient, but then the

barbers were versatile fellows: in addition to trimming beards and cutting hair they made combs, mended silk stockings, pulled teeth, and cupped persons who were ill or indisposed. In the barbershops large boxes of leeches (for bleeding) were kept; in the forties leeches sold for twenty cents apiece.³⁹

At any time of day or night one might also hear the African music of the blacks accompanied by the drum and marimba. The marimba consisted of a series of ten or fifteen thin steel rods fixed over a small board five or six inches square. This contraption was then put into a calabash, and as the performer pushed the rods down and let them fly back again, they produced a hum which sounded much like a jew's-harp.⁴⁰

Although the costumes of the free population of Rio eventually fell into line with contemporary European styles, clothes worn in the capital during the first quarter of the nineteenth century looked archaic to visitors fresh from Europe. Black coats, satin breeches, silk stockings, and opera hats were *de rigueur* in the city of 1808. On feast days the slaves appeared in white trousers, pink, yellow, or light blue waistcoats, sashes, and cocked hats; yellow canes and snuff boxes completed the ensemble.⁴¹ Caldcleugh thus described a Brazilian family on the way to church:

"First, the master, with cocked hat, white trowsers, blue linen jacket, and a gold headed cane; next follow the mistress, in white muslin, with jewels, a large white fan in her hand, white shoes and stockings; flowers ornament the dark hair: then follow the sons and daughters; afterwards a favorite mulatto girl of the lady, with white shoes and stockings, perhaps two or three of the same rank; next a black mordomo or steward, with cocked hat, breeches and buckles; next blacks of both sexes with shoes and no stockings, and several others without either; and two or three black boys unencumbered with clothes, bring up the rear."⁴²

One also saw upon the streets the students of the "College of San Jose" who wore purple gowns and who had "no elasticity of mind, no inquisitive curiosity, no urbanity of man-

ners, and but very little cleanliness of person.”⁴³ At a later day the color was supplied by the military: the cavalry of the national guard wore green uniforms with yellow collars, while the infantry were dressed in dark blue with bright green collars, the whole topped by a shako.⁴⁴

Custom in Rio was often more startling than costume. In the three days preceding the beginning of Lent, Quinquagesima Sunday to Ash Wednesday, came the great carnival time, the *Intrudo*. It was something like the Anglo-Saxon April Fools’ Day, but it lasted much longer. Men, women, and children, rich and poor, slave and free, armed themselves with wax balls filled with water and shaped like oranges or eggs, paper bags filled with starch, syringes, basins, and pails and set out to pelt and splash everyone in sight. Indoors or out no one was immune from the shower. It was the last glorious fling before the austerities of Lent.⁴⁵

Foreigners, especially Protestants (and more especially clergymen and missionaries), spoke very harshly and at great length on the subject of the religious customs of Brazil. No church feast could be observed without fireworks, and pious Protestants were aghast when they read the often-quoted estimate of Walsh that Rio spent \$75,000 a year on gunpowder and wax to enhance the glory of God.⁴⁶ Ewbank saw an advertisement in a Rio newspaper which announced: “On the second, the feast of the patron San Gonçalo; at 3 P.M. there will be brilliant horse-racing, after which a Te Deum and magnificent fireworks.”⁴⁷

The same writer described the “most popular of the Brazilian festivals,” that of the Holy Ghost, celebrated for several days by the Lapa, Rita, and Santa Ana churches:

“The Lapa troop is composed of white barbers, who are to a man reputed as expert handlers of violins and bugles as of lancets and razors . . . While engaged this morning in writing, Dona H—— came running up stairs to urge me to descend. ‘Quick! Here’s the Holy Ghost coming up the Catete. Don’t you want to see him?’ I am sure no one could be more

startled at such an announcement than I was, nor at the unaffected simplicity with which it was made. I went down, and, looking out of the open window, asked, 'Where?' 'Gone into that venda—but will be out directly,' replied a half dozen voices. In a little while a negro band, consisting of two French horns, three drums, a clarionet, and a fife, emerged, and recommenced a waltzing air in the middle of the street. Next appeared four white men, in albs over their ordinary dress. Two had small crimson banners, on each of which was a figure of a dove in a triangle. Another bore a little silver bird on a stand resembling a chamber candle stick. Like the banner men, he also carried an almsdish. The fourth bore a capacious bag . . . The minstrels, except when they leave it—as just now—to take a drink, keep the middle of the street, and regulate their steps to the progress of the alb-men . . . The collectors call at every house—nothing is refused, from bank bills to a banana, or a half yard of ribbon as a streamer for a banner staff."⁴⁸

Ewbank was not alone in his feeling that religion in Brazil was "manual, labial, and tibial,"⁴⁹ although occasionally we hear a faint word of praise. The hard-shelled Reverend Kidder admitted that Palm Sunday in Rio was celebrated with taste and effect: "on this anniversary the display of the real palm branches is not only beautiful, but often grand."⁵⁰ And that severe critic, Walsh, was impressed by the ceremony of taking the veil; he remembered much of the ritual and quoted it, including the lovely hymn which began: "Beloved Spouse, come—the winter is passed—the turtle sings, and the blooming vines are redolent of summer . . ."⁵¹

Foreigners took a morbid interest in the burial customs of Rio. When a death occurred, all the doors and windows of the house were closed, and the door was hung with a cloth which indicated the sex and marital status of the deceased: black and gold for a married woman, lilac and black for a spinster, blue and gold for a child. The funeral took place within a day or a day and a half after death. Relatives did not accompany

the body on its last journey; instead, the corpse was taken at night by friends and borne in an open coffin to the catacombs. There it was laid in a little niche, some quicklime thrown upon it, and the door closed. After a year or two the bones were removed from the niche; they might be buried, but Kidder knew of a gentleman who kept the bones of his deceased wife in his bedroom.⁵² When infants or young children died, "the occasion is considered joyous, and the procession is one of triumph. White horses, gaily caparisoned, and bearing white plumes upon their heads, draw an open coach, in which sits a priest in his most costly robes, with his head uncovered, and holding in his lap, upon an open litter, the remains of the infant, adorned with tinsel, and ribbons, and roses. The torch-bearers, if not dressed in white, have their coats trimmed with silver lace, and all the flambeaux are white."⁵³

The slaves and the poor departed this life without ceremony. Their bodies were likely to be carried to a burial ground in a hammock and thrown into a large pit (prepared daily) with the corpses of other unfortunates brought in during the same period. Kidder saw a Negro bearing the body of a little child on a tray upon his head, while the mourners, "adorned with flaunting stripes of red, white, and yellow," followed behind "chanting some Ethiopian dirge."⁵⁴

"It is too well known, perhaps, to remark that the Brazil is not the seat of literature," said Henderson in 1821, and two decades later Kidder noted that few original works by Brazilian authors had been published, except at the author's expense.⁵⁵ Brazilian publishers had to compete with those of Portugal and Paris, where printing costs were less and the equipment better; the foreign books were not only superior in typography and binding to anything the Brazilians could turn out, but they were also cheaper in price.

Before 1820 Luccock had reported that Latin and French books sold well at Rio, while Greek and Hebrew were not

much in demand. Caldcleugh found four booksellers in town; light subjects (translated from the French) were popular, and there was a good sale of old English medical books. Out in Minas Gardner ran across a medical *curioso* (a man who dabbled in a profession for which he was not educated) who employed a Portuguese translation of Buchan's *Domestic Medicine* to effect his cures.⁵⁶ On the whole, books in Brazil were more likely to succumb to bookworms than to be worn out by much reading. As Burton said of a typical library in an interior town, "The mental pabulum consists mostly of old and now hardly legible folios and squat quartos, which have fed the minds of churchmen and the bodies of book worms."⁵⁷

Caldcleugh found a Rio newspaper of February 1820 just printing the European news of the preceding March, but the newspapers in the capital improved and increased in number as the years passed. The city had fifteen newspapers in 1829, and no less than four dailies in the 1840's. Strangers to Brazil derived much amusement from the personal notices inserted in the newspapers. A fair sample is the following: "Senhor ——— is requested to pay, at No. 35 Rua de San Joze, the sum of six hundred milreis; and in case he shall not do so in three days, his conduct will be exposed in this journal, together with the manner in which this debt was contracted."⁵⁸

Probably the early schools of Rio were not much better than the College of San Jose already mentioned. Henderson speaks of the Seminary of San Joaquim "where Dr. Gardner lectures on chymistry."⁵⁹ As in other Latin American countries, the Lancastrian system for elementary education was given a trial: Rio had two Lancastrian schools in 1829.⁶⁰ Before 1820 a school of surgery had been established; in its five-year course the students began with anatomy, chemistry, pharmacy, and physiology and passed on to pathology, therapeutics, surgery, and midwifery; in the fifth year they had internships in the hospitals.⁶¹ Rio had an academy of fine arts, military and naval academies, a *collegio* (lyceum) estab-

lished by Pedro II in 1837, and twenty-eight public schools (accommodating about one thousand pupils in the forties). There were also a number of private schools maintained by foreigners.⁶²

The Historical and Geographical Institute, founded in 1838 through the efforts of Jose Silvestro Rebello, began its existence with four hundred members and correspondents; it maintained a quarterly review and journal, which recorded the proceedings of the society and published many valuable documents relating to the history and geography of Brazil.⁶³ Furthermore, both Pedro I and Pedro II had more than a passing interest in science and technology. The first Pedro was a Brazilian Louis XVI who had his own workshop in the palace where he made ship models, a billiard table, and tinkered with mechanical devices.⁶⁴ The second Pedro was better educated and possessed a broader conception of science and scholarship than his father. He tried to keep informed as to the progress of science and invention. Adalbert found Pedro II intensely interested in the daguerreotype (1842); Fletcher was amazed at his knowledge of geography and mineralogy and the fact that the emperor was acquainted with the works of Morton and Schoolcraft. Page and Agassiz had no occasion to complain of any lack of cooperation on the part of the emperor when they wished to pursue their researches in Brazilian territory.⁶⁵

Yet Brazil did not advance at the same pace as Europe and the United States in scientific research. The Brazilian approach was too bookish. Naturalists did not go into the field to collect specimens; slaves were sent to do this work.⁶⁶ Agassiz, with his usual bluntness, went to the heart of the matter when he said, "The education is one rather of books than of facts. Indeed, as long as the prejudice against manual labor of all kinds exists in Brazil, practical instruction will be deficient; as long as students of nature think it unbecoming a gentleman to handle his own specimens, to carry his own geological hammer, to make his own scientific preparations,

he will remain a mere dilettante in investigation. He may be familiar with recorded facts, but he will make no original researches . . . field studies are foreign to Brazilian habits . . . their naturalists are theoretical rather than practical. They know more of the bibliography of foreign science than of the wonderful fauna and flora with which they are surrounded."⁶⁷



Negroes of a Naturalist

Mrs. Agassiz was more concerned with the lack of educational opportunity afforded the Brazilian woman. Girls ended their schooling at thirteen or fourteen and "the next step in their life is marriage."⁶⁸ Subsequently they might learn French or gain a knowledge of music, but that was all. Brazilian women were not encouraged to read books; many books were prohibited to them—"nothing strikes a stranger more than the absence of books in Brazilian houses."⁶⁹ But the difficulty was not merely educational; Mrs. Agassiz concluded that there was a negative factor in Brazilian home

life, a restriction from external influences, which crippled development of the mind.

Between 1808 and 1870, however, Rio de Janeiro and Brazil underwent many changes: there was a definite technological advance (to be discussed in the next chapter) and progress was made in the direction of political and social equality. Ardent abolitionists who visited Brazil were often amazed at the "mildness" of slavery in Brazil and the equality enjoyed by free Negroes and mulattoes. It was a commonplace among Brazilians that slavery was doomed even as early as 1850, and this was not merely a result of the abolition of the slave trade. Many foreigners, like Walsh, learned a great truth from a visit to Brazil: "I came, therefore, to the irresistible conclusion in my mind, that colour was an accident affecting the surface of a man, and having no more to do with his qualities than his clothes."⁷⁰

CHAPTER XII

Brazilian Panorama

"If Brazil is to be the garden of the world, Anglo-Saxons
will be the gardeners." — *C. B. Mansfield*¹

UNDER Pedro II (1831–89) the Brazilian Empire enjoyed a reputation for stability, a truly unique distinction in nineteenth-century Latin America. While neighboring states stumbled along the rocky and unfamiliar path of republicanism, the monarchy of Pedro stood firm for almost sixty years. This is all the more amazing when one recalls that the economy of Brazil was essentially agricultural and heavily dependent upon world markets; it was not always easy to make both ends meet when it came to preserving a nice balance between imports and exports. In any given year coffee, sugar, and cotton were likely to constitute from two thirds to three fourths of the Brazilian exports; the production of the mines was insignificant in comparison to what it had been in the eighteenth century, and the rubber boom was yet to come. The primitive state of the country as late as 1850 is shown by the fact that its imports consisted almost entirely of (a) cottons and woolens, and (b) iron, steel, and hardware. Long after the departure of the Portuguese court in 1821, Brazil had to struggle along with a currency of copper coins and paper money because all its gold and silver was being drawn off to pay for imports. If it had not been for the three-cornered trade between Brazil, the United States, and Great Britain in which the Brazilians sold coffee to the United States to pay for imports from the British

Isles, a financial collapse might have terminated Pedro's rule at an early date. With all due respect to that great Brazilian, it may be said that he retained his throne by the grace of God, the North American coffee drinker, and the British bankers.

Regardless of the reasons for political stability in Brazil, stability was a fact, and it produced abroad great confidence in the country as one in which to invest money. As a result Pedro was able to foster the construction of railroads, the establishment of coastal steam navigation, the improvement of port facilities, and the rise of banks in Rio and the larger cities. Then, too, internal peace was a great talking point in the encouragement of immigration; not only were the less affluent Europeans attracted to the country, but also some foreigners with a little capital were willing to come to Brazil and gamble on setting up small mills and factories.

The picture one gets from the travelers' accounts in the period between 1810 and 1870 is very incomplete. Most people went to Rio, Bahia, Pernambuco, or Santos and São Paulo; some ventured into Minas Geraes and the other mining areas, but, with the exception of travelers on the Amazon, the descriptions of the Brazilian hinterland are meager. In this chapter we shall examine the country around Rio, glance briefly at Minas, then tour the coast north of Rio, and end our journey in southern Brazil.

Visitors to Rio in the time of John VI and the first Pedro often made a point of inspecting the royal plantation at Santa Cruz, about fifty miles southwest of Rio. There John VI had established a colony of two hundred Chinese for the purpose of cultivating tea, but the experiment was not a success. Many of the Chinese died and others soon drifted to Rio where they made a precarious living by selling imported Chinese cottons and fireworks.² Around 1817 Prince Maximilian ran across nine of these Chinese far to the north in the Rio Doce country.³ Yet tea could be grown in Brazil: both Kidder and Codman recalled drinking locally grown

tea in São Paulo.⁴ Tea drinking was a habit that increased in the urban areas; the day had passed when tea was sold in the apothecary shops like a drug.⁵

The Swiss immigrants brought over by John VI came very near suffering the same fate as his Chinese. In 1819 over one thousand Swiss were transported to Brazil and settled at Novo Friburgo, about seventy miles north of Rio. By 1821 Mathison found only three hundred left in the colony; the survivors had set up a sawmill, built houses, and were burning off the timber to clear the land.⁶ The colony managed to get on its feet after a time; farming and dairying provided a means of livelihood, and the Swiss sold their coffee, sugar, potatoes, and butter in Rio.⁷ When Agassiz came to Brazil in 1865, the Swiss in Rio itself appear to have been numerous, for they staged an elaborate birthday party for their famous countryman.⁸

In the vicinity of Rio there were numerous sugar plantations, coffee *fazendas*, and small enterprises of various kinds. Some early experiments in the introduction of European technology were made in this area. Mathison found an English steam engine running the grinding machinery at a sugar *engenho* near Rio in 1821; Prince Maximilian reported a plan to install a similar engine at Parahyba at an earlier date, and Koster noted the use of an engine at Bahia in 1815.⁹ On the other hand, water wheels were used both in the sugar industry and in flour milling even in the middle of the nineteenth century.¹⁰ One of the most novel devices was that seen by Kidder in the late thirties:

"Descending from Tejuco, my attention has more than once been arrested by heavy thumping sounds, occurring at intervals of one or two minutes. On examination, I ascertained that these sounds came from the operation of a mill of very singular construction. The reader will imagine a stick of timber, ten feet long, poised upon a fulcrum, with six feet of one extremity reaching to a quantity of corn in a cavity, and upon the other end a box, constructed and placed

so as to receive a small stream of water from a brook running down the ravine. When the box is nearly filled with water, the equilibrium passes to the shorter extremity of the timber, and the long end is thrown up in the air; as the short end goes down the water is spilled out, and the long end falls back upon the corn. Thus, by the process of filling and spilling, the timber is kept in a regular motion, and the corn is at length pounded into meal."¹¹

A venture of which we should like to learn more is that reported by Stewart. About 1846 a North American established a cotton factory "out toward the Organ Mountains," fifty thousand dollars' worth of machinery was imported from New York, and German and Portuguese women were employed as workers. The mill employed water power, using a wheel that weighed two and a half tons. The principal items manufactured were slave clothes and coffee bags.¹²

Most people who remained in Rio more than a few days had an opportunity to visit a coffee plantation. Of the many descriptions of the coffee-growing industry that have survived, one of the best is that of Ewbank:

"We next witnessed the processes by which coffee on this estate is prepared for market. I think I have remarked that the ripe fruit is not unlike a cherry in shape and color. The skin, rather thick and tough, incloses two of the grains or seeds known as coffee. The old procedure, still the prevailing one, is this: When the berries have acquired a deep red, they are picked into bags, thrown into heaps, and spread out on level spots of ground to dry in the sun. In front of a chacara, on the face of a mountain full seven hundred feet above us, I observed, as we came along, the entire surface of a detached tablerock, presenting several thousand superficial feet, covered with them. When the skins become shriveled, hard, and almost black, they are pounded in wooden mortars. The blows break the skins without injuring the tough grains. By sifting, the latter are separated and again laid out to dry, till a pellicle enveloping each grain is deprived of moisture,

when a fresh appeal to the mortar and winnowing-fan leaves them ready for sale or consumption.

"The improved mode consists in drying the grains on wooden trays or beds of slate, by which an earthy flavor, acquired when dried on the soil, is avoided; and in the introduction of two mills for removing the outer and inner envelopes. The chief feature of the first mill is a horizontal copper cylinder, whose surface is roughened after the manner of a rasp. It revolves against a board, between which and the teeth space is left for the grains to pass, but not the husk. The grains drop into water, and are left to soak twelve hours, by which a mucilaginous matter is removed, and the thin parchment film inclosing each grain softened. They are spread out in trays to dry. I counted 200 of these in one row, covering a space 700 feet by 15.

"When completely dry, the grains are taken to a mill resembling those used for grinding plaster, except that the two vertical rolling discs are wood, six feet in diameter, and five inches thick. Their light weight suffices to break and abrade the pellicles without injuring the grains. After being subjected to a fanner, they are put up in bags for exportation."¹³

Another excursion, rarely omitted, was to Petropolis, the site of the imperial summer palace some distance north of the bay of Rio. To reach Petropolis one usually took a steamer from Rio to the head of the bay, then traveled on the Mauá railway to Fragosa, and completed the journey in carriages which rolled smoothly over "a most beautifully constructed macadamised road."¹⁴ The departure from Rio was described by Burton:

"You hustle through a crowd of blacks. You make the little jetty under a barrel roof of corrugated and galvanized iron, between piles of coffee sacks . . . Near the coarse piers of creaking planks lie swamped canoes and floating boats, a red dredging craft, sundry little black steamers, a crowd of loading ships, and a scatter of crippled hulks; a dead dog floats lazily past us, the smoke of Dover stifles us . . ."¹⁵

There was a steamboat in Rio bay as early as 1819, and by mid-century craft propelled by steam were fairly common. It was reported that one line of steam ferries was owned by a North American dentist.¹⁶ The Mauá railway, the first in Brazil, was under construction by 1852.¹⁷ Hadfield was a participant in the initial excursion on the road in 1853; the first train consisted of a locomotive (made in Manchester) and a flatcar. Its speed was frightening, for the train covered a mile and three quarters in four minutes.¹⁸

Petropolis, with the exception of the summer palace, was not much of a town, but the surrounding scenery was well worth the trip. According to Scully: "The houses, or Swiss cottages, which surround the village are elevated, one above the other here and there, seeming like bird-cages perched in rocky niches—in striking contrast with the mountains on which they stand."¹⁹

An additional importance was given to Petropolis by the fact that it was the terminus for the road which ran out to Juiz de Fora in Minas Geraes, the main artery for the transport of coffee from that rich district. Under the auspices of the Union and Industry Company, the construction of this fine macadamized road had commenced in 1853; by 1865 the hundred-mile stretch from Petropolis to Juiz de Fora was virtually completed. The road employed both Brazilian and French engineers in its construction. The most modern machinery had been imported for the work; Burton noted that steam rollers from France were used in Brazil before they appeared in London.²⁰ There was even some talk of using steam-propelled road locomotives or omnibuses, although a mail coach service had already been inaugurated which covered the distance between Petropolis and Juiz de Fora in nine or ten hours.²¹ In 1866 the Union and Industry Company possessed 150 wagons and 2000 mules; in that year there passed over the road 12,000 tons of coffee and more than 10,000 passengers.²²

Beyond Juiz de Fora lay the Minas towns of S. João del Rey, Ouro Preto, Sabará, Januaria, and many others. We shall not follow our travelers thither,²³ but note only that Minas was on the decline in the nineteenth century. Life in the mining regions was rough, and the people had the manners and customs of frontiersmen. As in the United States, "the traveller first remarks the tameness of horses and the wildness of children."²⁴ The ladies of Minas were somewhat lacking in gentility: on horseback they shocked foreigners by spurning the side-saddle, and they smoked pipes. Gardner called on a lady who "had recently been smoking, as a long pipe was lying near her, and the floor beneath bore strong indications of excessive expectoration."²⁵ According to Burton, who does not tell us how he got his information, the Mineira, "like her sister in New England or Ireland, shows more philoprogenitiveness than amateness."²⁶

The low state of the clergy was also noted by the travelers. Von Spix and von Martius encountered a dissolute ecclesiastic of whom they recalled: "Our youthful host, whom we found surrounded by many half-white women and children and whose library was limited to Ovidius de Arte Amandi, seemed to us a worthy counterpart to the Hermit of the Decameron."²⁷ In a mining town Burton discovered a colony of Cornish miners who had an Anglican chapel which reminded him that "Protestantism is the dreariest of all possible religions, and that the thought of the Anglican service makes man shudder."²⁸ In a neighboring Catholic church he found the singing much better and more fervor among the worshippers, but the priest was an Italian who had forgotten his native language and had not yet learned Portuguese.²⁹

The cities of the coast north of Rio were much livelier than the Minas towns. Bahia, which had a population of more than a hundred thousand in 1800, doubled its size in the next sixty years. The harbor of Bahia was superior to those of Pernambuco and Maranhão, which proved too shallow

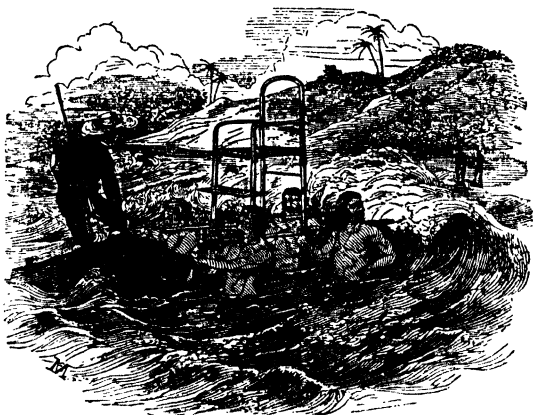
for the larger vessels built in the nineteenth century. Of Bahia Dundas says, "It may be said to form two divisions, the one constituting the upper, and the other the lower city. The former division is built on a ledge of rock . . . about six hundred feet in height, and overhanging, as it were, the lower division . . . The streets are irregular, ill-paved, generally narrow, and having a gutter in the middle, into which is commonly cast the filth and offal of the adjacent buildings. The houses are unprovided with water closets, and are otherwise ill-arranged for the purposes of ventilation and comfort. The slave population is numerous and crowded, the police inefficient, and a scavenger department unknown. The public sewers are few, the *becos* (alleys) leading from the principal streets serving as the temples of Cloacina, and as receptacles for every kind of filth . . . Partial, though heavy rains, occur at all seasons of the year, by which the lower city is inundated, and contaminated by the filth and offal of the upper city."⁸⁰

Kidder⁸¹ found the town very narrow with only a few principal streets; those connecting the upper and lower towns wound along the ravines that cut the bluff. Carriages and carts were not used. Slaves transported goods on their heads or on poles as they did in Rio, and passengers rode in covered chairs (*cadeiras*). In addition to the other odors of Bahia, there was a fine smell from the factory which extracted whale oil. The proprietor told Kidder that his oil was superior to the North American product, but Kidder's conclusion was that "if there was no other recommendation to the American oil, than the mere circumstance of its being prepared on the high seas, rather than in the neighborhood of a populous city, it should, for that reason, have my patronage."⁸²

It is not surprising that Bahia, crowded and unsanitary, was an unhealthy place. Malaria, typhus, elephantiasis, and many other unpleasant diseases were common there. In addition to those catalogued by Dundas, there was also the cutaneous infection described by Lindley:

"The cure of this disorder is hardly ever attempted till it settles at last in a scaly leprosy, particularly on the stomachs of the men, who are provided with apertures in the sides of their shirts—for the accomodation of scratching—and this they do before anyone, considering it as a mark of ease, comfort, and becoming at home."⁸³

Bahia exported sugar, tobacco, cotton, cacao, and leather. Its trade was extensive, and many foreign merchants became resident there. Inevitably the new technology was imported from abroad. By 1865 there was a railroad running out sev-



A Landing in Northern Brazil

enty miles from Bahia toward the São Francisco River, telegraph service had been inaugurated, and British steam engines were employed for pumping water to the upper town.⁸⁴ Within a few years the Bahia Steam Navigation Company was operating a fleet of sixteen vessels between the city and the mouth of the São Francisco River.⁸⁵ It was hoped that the river would become "a new Mississippi," which would convey the products of Minas Geraes to the sea.⁸⁶

Pernambuco, a "dirty town,"⁸⁷ was not as large as Bahia, but it was a busy place. The city was peculiar in that it con-

sisted of three parts: Recife, the reef; S. Antonio, an island; and Boa Vista, on the mainland. Then there was also the older and more attractive suburb, Olinda. Some of the streets were paved; even in the thirties, Kidder found them lighted by street lamps.³⁸

"Many of the houses of Pernambuco are built in a style unknown in other parts of Brazil. That occupied by Mr. Ray . . . was six stories high. The first or ground floor was . . . occupied by the male servants at night; the second furnished apartments for the counting-room, consulate &c.; the third and fourth for parlors and lodging rooms; the fifth for a dining room, and the sixth for a kitchen. Readers of domestic habits, will perceive that one special advantage of having a kitchen located in the attic, arises from the upward tendency of the smoke and effluvia universally produced by culinary operations. A disadvantage, however . . . is the necessity of conveying various heavy articles up so many flights of stairs. Water might be mentioned for example . . . Anyone will perceive that the liability of mistake, in endeavoring to preserve the equilibrium of each vessel of water thus transported, exposed the lower portion of the house to the danger of a flood."³⁹

Pernambuco, like Bahia, was an important center for the sugar industry. From the days of Koster, at the beginning of the century, sugar was noted by the travelers as particularly significant, and by 1860 the annual production of sugar was four times what it had been in 1810. The United States consul at Pernambuco reported in 1859 that the production of food had been sacrificed for that of sugar: "prices of produce would confound the first batch of immigrants to California. . . . I do not exaggerate when I inform you that day boarders are paying \$100 per month for two meals per day and are expected to find their own grub."⁴⁰

Koster described the methods of the sugar industry at great length. The lands were burnt off before planting and were never "grubbed up." With hoes the workers made

trenches five or six inches deep, put the cane cuttings in the trenches, and covered them. The cane was ready for the mill in about fifteen months. The mills were worked by horses or oxen; some were water-powered, and later steam was introduced (as we have seen). The mills consisted of three upright rollers of solid wood hooped with iron; into these the cane was fed by hand. A bar of iron was kept handy in case a worker became enmeshed in the rollers; otherwise it might be necessary to amputate his arm with a hatchet in order to free him. The boiling and whitening processes which followed the grinding of the cane were similar to those used elsewhere in South America.⁴¹

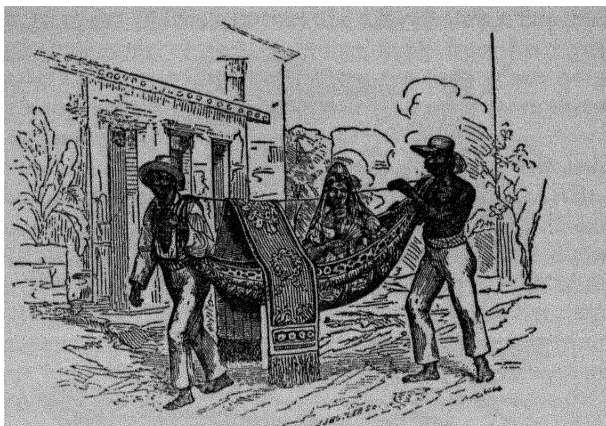
The sugar industry in Brazil underwent a general mechanization in the half century after Koster's visit to Brazil. Not only were steam engines introduced, but also various kinds of machinery: horizontal rollers replaced the old vertical ones, and new techniques for evaporation were employed. In the later period much of the sugar was sent to Europe for the final stages of the refining process.⁴²

The future emperor of Mexico and his lively companions, who were fond of practical jokes, introduced a rich Brazilian sugar planter to some beet sugar which they had brought along from the Old World.

" . . . he suddenly seized like a cat upon the pyramid of sugar, hastily ate some of the sweet dust, made a still more fortunate essay, and hurriedly put some of it into a folded paper. Deep thought now took possession of the great man, a look of melancholy overspread his features . . . Such might have been the expression of countenance of our father Adam after he had eaten his half of the apple; or of Socrates, when he had emptied the cup of poison. Senhor G—— had, for the first time in his life, met with his deadly enemy. That of which he had dreamed during hot tropical nights, the vision which had caused beads of agony to stand on his brow, had become a reality."⁴³

An important by-product of the sugar industry was that

"balsam of slavery,"⁴⁴ *cachaça* (rum). Burton noted that this potent brew tasted of copper and smoke; while Dr. Johnson had said that brandy was the drink of heroes, it was equally true that its effect was "liver," dropsy, and death. The only legitimate uses for *cachaça* were for bathing "after insolation" and for "washing away the discomfort of insect bites."⁴⁵



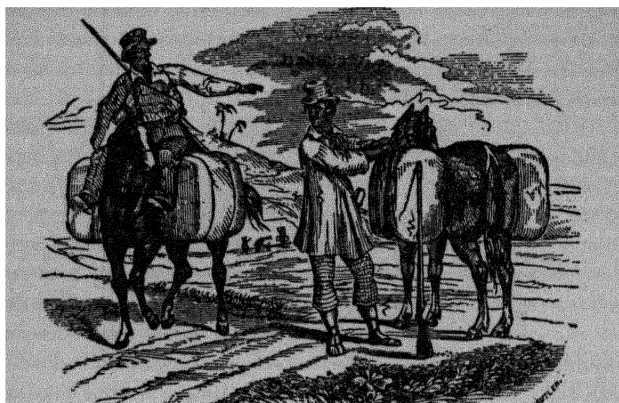
Travel in Northern Brazil

Koster found cotton important in Pernambuco. As with the sugar plantations, the fields were cleared by fire; then holes were dug in the ground about six feet apart, and three seeds planted in each hole; maize was often planted along with cotton. After picking, the cotton was processed with a machine resembling the Whitney cotton gin.⁴⁶

During most of the century down to the beginning of the Civil War in the United States, however, the production of cotton languished in Brazil. Then, in the sixties, it rose rapidly. In 1863 cotton gins "and horse powers to run them" were first imported; by 1866 more than fifteen hundred of these machines had been brought to northern Brazil.⁴⁷

The economy of Maranhão, farther to the north, was much like that of Bahia and Pernambuco. Maranhão was a

smaller city "with two story houses and poorly paved streets."⁴⁸ There the ladies rode in hammocks slung on poles, and the beggars followed their calling on Saturdays only.⁴⁹ By mid-century the place was quite lively: it boasted distilleries, two soap factories, and an iron foundry. Ten years later Maranhão had a gas works constructed by a North American, and a water works was contemplated.⁵⁰



Sertanejos

In this northern country—inland from Bahia and Pernambuco—strange people were often encountered. There were gypsies, who had come to Brazil in the eighteenth century;⁵¹ and there were, most interesting of all, the *sertanejos* from the dry back country. We may quote Koster's description of one of them:

"He rode a small horse with a long tail and mane; his saddle was rather raised before and behind; his stirrups were of rusty iron, and his bit was of the same; the reins were two very narrow thongs. His dress consisted of long pantaloons or leggings, of tanned but undressed leather, of a rusty brown colour, which were tied tight round his waist, and under these are worn a pair of cotton drawers or trowsers, as the seat

is left unprotected by the leather. He had a tanned goatskin over his breast, which was tied behind by four strings, and a jacket also made of leather, which is generally thrown over one shoulder; his hat was of the same, with a very shallow crown and small brim; he had slip-shod slippers of the same colour, and iron spurs upon his naked heels—the straps which go under the feet prevent the risk of losing the slippers. A long whip of twisted thongs hung from his right wrist; he had a sword by his side, hanging from a belt over one shoulder; his knife was in his girdle, and a short dirty pipe in his mouth.”⁵²

Steam transport by sea and land grew rapidly in Brazil. In the fifties there were regular connections with Europe, and soon there were various lines, particularly the Companhia Brasileira de Paquetes, which linked the major ports along the coast. River traffic increased, too. There were steamers even on the Itapicurú which traveled between Maranhão and Caxias, although much of the cotton from upriver was transported in forty-ton canoes.⁵³ The Brazilian navy had six steamers in 1845 and twenty-nine by 1866.⁵⁴

We have already mentioned the Mauá railway and the line at Bahia. Another road from Pernambuco designed to meet the Bahia railway at the Rio São Francisco had a length of over seventy-five miles in 1865.⁵⁵ There was a railroad from Porto das Caxias to Cantigallo and another short line from Rio running out through Tejuca.⁵⁶ Most spectacular of all was the Dom Pedro Segundo Railroad, which was begun in 1857. The work was initiated by British engineers, but the second section, from Belem to Parahyba, was the work of North Americans. Agassiz, who traveled on the Dom Pedro Segundo in 1865, says:

“The difficulties of construction throughout the second section were immense; indeed, there was an almost universal distrust of the practicability of the work. Even after it was considerably advanced, it would probably have been abandoned but for the energy of the President, who shared the

confidence of the engineers, and pushed forward the enterprise. . . . The sharpness of the mountain spurs rendering it impossible in many cases to pass around them, tunnels became necessary, and fifteen were actually made, varying from 300 to more than 7,300 feet in length, forming, in the aggregate, three miles of subterraneous line. Of those tunnels, three pass through rock decomposed to such a degree that lining throughout was necessary, while the rest are pierced . . . through solid rock."⁵⁷

In the south the Santos-São Paulo railway was almost equally impressive. The major problem in this case was to negotiate the virtually perpendicular mountain ascent necessary to reach the plateau some 2700 feet above Santos. Construction was begun about 1857, and the road was completed through São Paulo to Jundiahy by 1866.⁵⁸ Scully says:

"Starting from Santos the road runs to the Cubatão River over a swampy country, unpopulated, and without any present powers of production, except rice and reptiles, at first upon a road and bridge constructed by the government to connect Santos with *terra firma*. Four miles from Cubitão the land becomes more elevated . . . here you have the mountain gorge before you whose ascent . . . gives the S. Paulo railway so emphatic a character. . . . This upward and almost straight ascent of upwards of five miles is divided into four 'lifts' of about a mile and a quarter each, having a level platform of some 400 feet in length between them. On these lifts, as in general on all the line, the track is single, except at the upper half, where it is doubled to admit of the ascending and descending trains passing each other. At the upper end of each platform is placed a powerful stationary engine of 200 horsepower . . . calculated to haul up 50 tons at the rate of ten miles an hour . . . A steel wire rope . . . passes over a friction wheel on each side of the fly-wheel drum upon which it is wrapped round, and, one end being attached to an ascending and the other to a descending train, it is intended to make the lift partially self-acting."⁵⁹

These inclines were often damaged by heavy rains. Even under the best conditions a trip up the gorge was "uncomfortable"; Burton called them the "glissades of death."⁶⁰ It was not a rapid journey to São Paulo, either: Codman recalled that it took his train thirty hours to go forty-five miles.⁶¹

Codman, a North American ship captain, thought Santos a decadent place in the sixties but noted that the inhabitants hoped for better days when cotton production in the interior reached new levels. He sneered that two cows supplied the whole town with milk and that ships arriving in the port were not allowed to fire guns announcing their advent because it disturbed the siesta of the citizens.⁶²

On the other hand, Santos had long been the principal port of São Paulo. Vast quantities of salt were landed there for shipment to the interior; other imports were iron, copper, and manufactured goods.⁶³ From the back country came coffee for Hamburg and Falmouth, sugar for Buenos Ayres and Chile, and (later) cotton for the British market.⁶⁴ Even after the railroad was built, mules still carried much coffee and cotton down from the highlands. As many as five hundred thousand mules might cross the Cubitão toll bridge in a single year.⁶⁵

Before the building of the railroad travelers had made their way to São Paulo on horse or mule back ascending the sierra by a zigzag road, a journey of about three hours from sea level to the top of the plateau;⁶⁶ the remainder of the trip might consume a day or a day and a half. Of the road up to the plateau Kidder says, "The road . . . is one of the most expensive and best wrought in Brazil. Yet owing to the steepness of the ascent, it is utterly impassable to carriages. It embraces about four miles of solid pavement, and upwards of one hundred and eighty angles in its zig-zag course."⁶⁷

Accommodations for the traveler on the way to São Paulo were haphazard. Of the four kinds of Brazilian resting places described by Walsh⁶⁸—the *estalgem* (inn), the *venda* (pul-

peria), the *fazenda* (farm house), and the *rancho* (an open thatched shed like the post house of the pampas)—only the latter two were to be found on the São Paulo road. From Kidder's narrative one gets the impression that *estalgem* must have been an unfamiliar word in that country, for when he inquired about inns he was always directed to private houses.⁶⁹

São Paulo itself was a "remarkably pleasant" town with its broad streets, narrow sidewalks, and two-story houses made of stone or adobe. For the adobe houses the *taipa* method like that used for foundations and walls on the pampas was often employed.⁷⁰ Before the coming of North American kerosene in the sixties, the Paulistas burned castor oil in their brass lamps—as did most Brazilians.⁷¹ Von Spix and von Martius, who visited the town before 1820, remarked that North American chairs and French looking glasses had not arrived there—yet.⁷² The coming of the railroad and the cotton boom roused São Paulo from the quiet existence that it had enjoyed during most of the nineteenth century; Codman was certainly mistaken when he thought that São Paulo as a town would decline after the railroad was extended to Jundiahy.⁷³

West of São Paulo, not far from Sorocaba, was the famous Ipanema iron foundry, which had been founded in 1810. Employing Swedish and German workmen, this establishment had been under the direction of the metallurgist Varnhagen in the period between 1814 and 1821.⁷⁴ Von Spix and von Martius reported the manufacture of horseshoes, nails, and locks there in the early days, while Kidder found operations expanding under the third director, Major Bloem, in the late thirties.⁷⁵

"The establishment belongs to the government, and consists of six or eight buildings, which subserve the usual requisites in smelting and casting iron. There are also a large house in which the director resides, and several smaller dwellings occupied by the workmen and their families, of whom at

this time twenty-seven were Germans. . . . In order to have the benefit of a small stream of water, the works have been built at a considerable distance from the locality of the mineral. As a primary consequence, great labor is required to transport the ore in its rough state from the mountain. . . . The mineral yields ninety per cent. of the pure metal, which, although of a fine quality, is found to be too brittle for economical use. To remedy this, greenstone, which is also found near by, is thrown into the furnace in fragments, similar to the pieces of ore, and answers the desired end by making the iron more ductile. The principal castings hitherto, have been the wheels, cylinders, & c., which are needed in the sugar engenhos of the vicinity. The director has recently proposed to open a department for steam-boat castings.”⁷⁶

Mention of the German workmen at Ipanema serves as a reminder that German immigration to Brazil was considerable in the nineteenth century. The Germans had first come to the coastal cities as common laborers,⁷⁷ but eventually there was a strong colonization movement which centered in Rio Grande do Sul where there were reputed to be sixty thousand Germans by 1870. The Mulhalls,⁷⁸ who traveled in this province, were struck by the predominantly Teutonic character of the towns and the evidences of vigorous economic activity: coffee, sugar, cotton, and the cattle industries had made large gains in the decade between 1860 and 1870.

Of the various nationalities represented in Brazil, Codman noted that the French were clannish and stayed in the cities; the Swiss got homesick; the Italians came with their hand-organs, bought monkeys, ground away for a few years, and then went home; but the Germans came to stay. The latter were “hard faced men with heavy frocks and blue wool stockings,” and the women were “straight up and down with yellow braided hair, short dresses, and feet heavy enough to ballast them against the loads carried upon their heads.”⁷⁹

The Civil War in the United States, as we have seen, great-

ly stimulated cotton production in Brazil. The United States consuls in Brazil viewed this development with alarm,⁸⁰ while the British gave every encouragement to the Brazilian cotton raiser.⁸¹ New machinery was brought in, and the Manchester Association even sent seeds to Brazil.⁸²

Closely connected with this rise of cotton production was the emigration of Southerners to Brazil after the close of the North American Civil War. Burton noted with joy the Southern exodus; his feeling was that, while Englishmen and Irishmen did not flourish in the tropics, the Southerners would be a vital force in Brazilian economy. He says: "when Southerners from the United States shall have settled in the Empire, the men, so well accustomed at home to 'drive' whites and to deal with *proletaires* and the *colluvies gentium* of Europe, will soon supply the necessary curb."⁸³

Actually, the Southerners failed to achieve what was expected of them, but many of them had great plans for the future. One of the real characters in the southward movement was the vituperative Reverend Ballard S. Dunn, who proposed to establish a home in Brazil for "expatriated" Southerners.⁸⁴ Dunn acquired a large tract of land south of Santos on the Juquia River, a tributary of the Iguape; to this territory he gave the attractive title of "Lizzieland." He was contemptuous of the Brazilian methods of cultivating cotton: they planted too thickly, did not know how to cultivate, and used the plow only sparingly.⁸⁵ As for ginning, "at Itapeninga the most ludicrous display of motive power the world has ever produced was witnessed in the operation of a treadmill worked by three men for ginning cotton."⁸⁶

Dunn's immigrants were to be allowed to bring in free of duty wagons, machinery, and furniture. While clothing was cheap in Brazil, the colonists were advised to bring heavy shoes, an unobtainable item in São Paulo. Prices were low in São Paulo, too: coffee sold for ten cents a pound; sheep for three dollars a head; hogs ran as high as eight dollars, but rum was twenty-five cents a gallon.⁸⁷

Most of the foreigners who visited Brazil in the nineteenth century were critical, and many of their remarks, which were often overstatements or misstatements, must have given the reading public in Europe and the United States a very bad impression of Brazil. Bates lived long enough among the Brazilians to be able to endure them, said Spruce, who apparently did not.⁸⁸ "The Juiz is one of the few Brazilians I came in contact with for whom I entertain feelings of respect," remarked Gardner.⁸⁹

And so it went. Luccock sneered at the manners of the Brazilians and reported that while in southern Brazil the people used knives and forks, in the north they had only knives.⁹⁰ Koster laughed at the Brazilian who came back to Pernambuco from England and reported two things peculiar there: the children spoke English, and people never died (because he never saw the sacrament being carried to the sick).⁹¹ Walsh told a story about a Brazilian lady who had triplets, one white, one brown, and one black.⁹² Maximilian said that the Brazilian army looked like a body of civilians practicing on the sly.⁹³ All this and much more, combined with anti-Catholic propaganda like that found in Kidder, Ewbank, and many others, did not make for better understanding of Brazil.

"The Brazil is, especially to the foreign traveller, a land of specialists. As he disembarks at Pernambuco the questions proposed to him, even from the guard boat, are: Is he a merchant? an engineer? a naturalist? a doctor? No! then he must be a dentist. And he will do well . . . to become one of the five recognized castes."⁹⁴

This specialization was not confined to the foreigner. Webster found that in Brazil the medical profession was divided among surgeons, apothecaries, druggists, and barbers; each had a special function.⁹⁵ In Barbacena Burton discovered that "the destructive and lucrative art of healing" numbered many votaries: six allopaths, five apothecaries, four midwives, and one homeopath.⁹⁶ North American dentists in

Brazil, as elsewhere in Latin America, were in great demand. They could "find employment in all Brazilian towns, and in the mouths of almost all Brazilian women who can afford to avail themselves of their services."⁹⁷ Even in the colonial period the poor teeth of the Brazilian ladies had been notorious; their husbands liked them to be fat, and so they stuffed themselves on sweets and ruined their teeth.

Of all the defects of Brazil, however, Burton maintained that the greatest was its small population, and he advocated a definite campaign to prevent a waste of man's productive powers:

"In fertile Pará feminine births average . . . four or five to one masculine. Is it not lamentable to see men so blinded by the prejudices of education, thus neglecting the goods the gods provide? Surely it is time for some Ill^{mo} Senhor Dr. Brigham Joven to arise in the land."⁹⁸

CHAPTER XIII

The Great River

"I thank God that we Englishmen are not as other men are, especially as those Brazilians." — *Richard Spruce*¹

"The man knows nothing—I doubt if he could even shoot a bird with an arrow."

— *Youthful Amazonian Critic of Richard Spruce*²

IN THE year that Hernando de Soto first glimpsed the Mississippi, one of his former comrades, Francisco de Orellana, traversed the length of the Amazon from Peru to the Atlantic. Yet three centuries later when the Mississippi had its New Orleans, its St. Louis, and a dozen other great cities, the Amazon had only Pará, and above Pará—practically nothing. The Amazons still belonged to the trader, the missionary, and the Indian. There was no frontier, and there never had been a colonial period.

In this chapter we shall see the Amazon as it was in the late 1840's and in the two decades that followed; in that golden age when Bates, Wallace, and Spruce were discovering and collecting fabulous wealth in the "treasure-house of the naturalists." These were not static years. Bates and Spruce noted many changes in technology and custom between the time of their arrival and that of their departure; the Amazonian world that greeted Edwards in 1846 was far different from the one seen by Agassiz, Orton, and Stevenson in 1867. After 1853, when the introduction of the steamboat shortened the great river and reduced the voyage from Pará

to Manaus from a matter of months to one of days, the stage was being set for a new drama of the Amazon. The age of the explorer was almost over, and that of the exploiter was about to begin. In a few more decades the greedy and imperious industrial civilization of Europe and North America would send its raiding parties into the jungle to tap the rubber trees and to die there of disease and drink. The river settlements would grow into small cities; Manaus would have street lights, an opera house, and high prices, while the Indians would take refuge in the forests.

In 1870 it was nearly curtain time for the great tragedy with its unusual setting and conventional plot, but we shall not remain to see it played.

Pará, on the southern shore of the great river, behind the Island of Marajo and about eighty miles from the sea, is the gateway to the Amazon country. A thriving city of almost twenty-five thousand in 1819, it was the victim of a smallpox epidemic in that year and the scene of a desperate native uprising in 1835. Although the commerce of Pará had begun to revive by the middle of the nineteenth century, its inhabitants in 1850 did not exceed fifteen thousand. As Bates first saw the town (1848):

"The appearance of the city at sunrise was pleasing in the highest degree. It is built on a low tract of land . . . the white buildings roofed with red tiles, the numerous towers and cupolas of churches and convents, the crowns of palm trees reared above the buildings, all sharply defined against the clear blue sky, give an appearance of lightness and cheerfulness which is most exhilarating. The perpetual forest hems the city on all sides landwards."³

The city was "well laid out," but its streets were "badly paved" with large and irregular stones.⁴ Next to the river were tall, gloomy, "convent looking" buildings occupied by the merchants and shopkeepers;⁵ farther back the streets were lined with single-storied whitewashed dwellings with

green latticed windows. The town as a whole gave the impression of having seen better days, for many fine homes on the outskirts of the city had been deserted since the revolution of 1835. "Streets full of extensive private residences, built in the Italian style of architecture, were in a neglected condition, weeds and flourishing young trees growing from large cracks in the masonry. The large public squares were overgrown with weeds, and impassable on account of the swampy places which occupied portions of their areas."⁶

In the parts of the town inhabited by the very poor there were further signs of "indolence and neglect." The houses were dilapidated; garden fences went unmended while chickens, pigs, and goats roamed everywhere at will. "But," says Bates, "amidst all, and compensating every defect, rose the overpowering beauty of the vegetation. The massive dark crowns of shady mangos were seen everywhere amongst the dwellings, amidst fragrant blossoming orange, lemon, and other tropical fruit trees; some in flower, others in fruit, at varying stages of ripeness."⁷

Pará was attractive to one who loved nature, but it had its drawbacks. In the fifties it was visited by three serious epidemics: yellow fever in 1850, smallpox in 1851, and cholera in 1855. People began to wonder why Pará, "once the resort of invalids from New York and Massachusetts," had ever been thought healthful.⁸ The yellow fever epidemic, observed by both Bates and Spruce, was unusually severe; at least three fourths of the inhabitants of Pará were stricken, and the common preventive measures, firing cannon and burning barrels of pitch at the street corners, seemed to have no effect in halting the spread of the epidemic.⁹

Another objection to Pará was its cuisine. Edwards got tired of "fish and farinha" and complained that the small amount of available beef was always boiled rather than roasted;¹⁰ this may have been because "roast beef à la Amazon is noted for its extreme hardness and power of resisting the process of mastication."¹¹ Wallace remarked that

the beef was always cut in the morning and consumed the same day; fish was dear and pork was to be had only on Sunday.¹² Most of the bread was made from North American flour, while the butter came all the way from Ireland or the United States.¹³ The diet of the natives appeared to consist mostly of salt fish, rice, farinha, and fruit.

Farinha is, of course, manioc flour, the common food of tropical Brazil. The cultivation and preparation of the manioc was described by a number of travelers:

"A field of ripe mandioca looks like a nursery of hazels. The stem of each plant is isolated, and has only a few palmated leaves at top. A bud, or projecting nucleus of a sprout, occurs at every inch on the otherwise naked stem, the length of which is from six to seven feet, and an inch thick at the base. When a field is reaped, the stems are chopped into pieces three, or at most four inches long. These are planted, and quickly take root, sending forth shoots from the buds, and in two years mature a new crop. The tubers yielded by each stem average five in number, the largest six to seven inches long, and four thick; the shape irregular, and in substance resembling the parsnip."¹⁴

These roots were scraped and rinsed and put into a grater which reduced them to a pulp. The next step was to expel from the pulp by means of a press the poisonous juice of the manioc. Then, after further grating, which reduced the pulp to a meal, it was heated in copper pans to hasten the drying process.¹⁵

Pará was the base of operations for numerous foreign merchants, British, French, German, North American, and Portuguese. One of the elder members of the foreign colony was James Campbell, of the important firm of Campbell and Blackfield, who greeted Maw at Pará in the twenties and who was still active there a quarter of a century later.¹⁶ There was also Archibald Campbell, who had a pottery and tile factory not far away.¹⁷ Well known to many Anglo-Saxon visitors to Pará was the Scotchman, James Henderson, whom Maw

noted as "a young man in Mr. Campbell's house."¹⁸ Edwards remembered Henderson in the forties as the only man in Pará who owned a plow;¹⁹ the old fellow was still very much alive in 1868,²⁰ and Stevenson, who encountered him in the preceding year, has left us the following description of the patriarch:

"I was politely accosted by a tall, gaunt, but distinguished-looking old man with a white hat and beard, and a green umbrella under his arm, 'speering at me' in broad Scotch accent questions about the newly-arrived passengers.

"He said he was the Agent for all British employees of the Peruvian Government on their steamers, and at the Naval Repairing Station at Iquitos . . . The kindly old gentleman proved to be Mr. James Henderson, better known in Para as Dom Diego (James), to whom I happened to have a letter of introduction."²¹

Pará exported some rice, cotton, sugar, and hides, but in mid-century cacao, sarsaparilla, Brazil nuts, and rubber were more important; there was also *urucu*, an orange dye obtained from a tree resembling the quince.²² Trade was channeled in that hides went to Portugal, rubber to England, cacao to France, and Brazil nuts to the United States. Commerce with the interior was complicated by the fact that copper was the only circulating medium,²³ and the credit system was in a chaotic state:

"There is, I think, no country where such a universal and insecure system of credit prevails as here. There is hardly a trader, great or small, in the country, that can be said to have any capital of his own. The merchants in Para, who have foreign correspondents, have goods out on credit; they sell on credit to the smaller merchants or shopkeepers of Para; these again supply on credit the *negociantes* in the country towns. From these last the traders up the different rivers get their supplies also on credit. These traders give small parcels of goods to half-civilized Indians, or to anyone who will take them, to go among the wild Indian tribes and buy up their

produce. They however have to give credit to the Indians, who will not work until they have been paid six months beforehand; and so they are paid for sarsaparilla or oil, which is still in the forest or the lake. And at every step of this credit there is not the slightest security. . . . To cover all these chances of loss, the profits are proportionally great at every step, and the consumer often has to pay two shillings a yard for calico worth two pence, and everything else in like proportion.”²⁴

As the years passed Pará increased in size and improved its appearance. Bates was surprised at the changes he observed in 1859 when he visited the town again after an absence of seven years. The streets had been paved with concrete, the squares weeded, and many new houses built. The city now boasted a library, four daily newspapers, and sixty “public vehicles” (cabriolets). Prices of food were very high, and house rent was “most exorbitant.”

“The expenses of living had increased about fourfold, a natural consequence of the demand for labour and for native products of all kinds having augmented in greater ratio than the supply, through large arrivals of non-productive residents, and considerable importations of money on account of the steamboat company and foreign merchants. Pará, in 1848, was one of the cheapest places of residence on the American continent; it was now one of the dearest.”²⁵

By 1873 Pará had a population of thirty-five thousand. It had a new theater, gas lights, and hotels. There was even a steam tram which ran from the cathedral to the suburb called Nazareth. “The train consisted of a high-pressure engine, looking like a huge black bottle on a covered truck, and two cars; an open one for second-class passengers, and a closed one, better furnished for the first class. These were coupled together by iron rods five or six feet long, so that the various parts of the train seemed to be holding each other at arms’ length.”²⁶

This conveyance whistled and snorted through the streets

at a great rate; fares were paid in tokens consisting of paper cards which were used for change in the stores.

All this display of modernity was a far cry from former days when the only example of technological advance in Pará was to be found at the famous rice mills at Maguary about twelve miles away. The mills were originally owned by a Brazilian, but in the later thirties they became the property of a "Mr. Upton of Northampton, Mass.," who, besides employing water power, also introduced a steam engine of sixteen horsepower. With the coming of a North American foreman, Mr. Leavens, "a practical millwright," a sawmill was added to the machinery already used for cleaning rice; thus, Maguary became one of the few places in the whole Amazon at which "sawn timber" was available.²⁷ "The mill was a prodigious building and constructed almost entirely of stone. Its machinery was controlled by the power of steam, as from a small pipe at the top of the building, a cloud of vapor was continually belching forth."²⁸

Wallace visited Maguary with Bates and recorded our most complete description of the mills. There were two mills for cleaning rice; one employed the steam engine and the other had water power. Water power was also used for the sawmill.

"It is of the kind commonly used in the United States, and the manner of applying the water is rather different from which we generally see in England. There is a fall of water of about ten feet, which, instead of being applied to an overshoot or breast-wheel, is allowed to rush out of a longitudinal aperture at the bottom, against the narrow floats of a wheel only twenty inches in diameter, which thus revolves with great velocity, and communicates motion by means of a crank and connecting-rod directly to the saw, which of course makes a double stroke to each revolution of the wheel. The expense of a large slow-motion wheel is thus saved, as well as all the gearing machinery necessary for producing a sufficiently rapid motion of the saws; and the whole having a

smaller number of working parts, is much less liable to get out of order, and requires few repairs. The platform carrying the log is propelled on against the saw in the usual manner, but the method of carrying it back at the end of the cut is ingenious. The water is shut off from the main wheel, and let on at another shoot against a vertical wheel, on the top of the upright shaft of which is a cog-wheel working into a rack on the frame, which runs it back with great rapidity, and in the simplest manner.”²⁹



Travel on the Amazon

Before the introduction of the steamboat about mid-century, much of the trade on the Amazon was carried in small sailing vessels of which the most common type was a one- or two-masted affair equipped with a rudder and a keel and having the general appearance of a Chinese junk.³⁰ A smaller boat was the *montaria*, much used by the Indians, which was made of five planks, “a broad one for the bottom, bent into the proper shape by the action of heat, two narrow ones for the sides, and two small triangular pieces for stem and stern. It has no rudder; the paddle serves for both steer-

ing and propelling. The montaria takes here the place of the horse, mule, or camel of other regions."⁸¹

Upriver the natives also made twenty-foot canoes holloed out by fire from a single log.⁸²

A few steamers appeared on the Amazon around 1850; Herndon saw one at Manaus in 1852,⁸³ but the real beginning of steam navigation dated from 1853 when the Amazon Steam Navigation Company began operations under the leadership of the vigorous and far-sighted Viscount Mauá. Within two years steamers were operating up the river as far as the Peruvian frontier, and by the sixties eight or nine vessels were making regular runs between Pará and Manaus, and between Manaus and Peru.⁸⁴ Some of the vessels employed were made in Brazil, others in England; in 1870 four North American iron paddle-wheelers were acquired.⁸⁵ The steamers were primarily wood-burners; they were painted red and white, and they had a covered upper deck whose sides might be closed with canvas curtains; cabins and bathrooms were available below, although most men preferred to swing their hammocks on deck.⁸⁶ The Amazon Steam Navigation Company originated under Brazilian ownership, but the Brazilians were bought out by the British in 1874. This, of course, was after the Amazon had been opened to international navigation (1866).⁸⁷

A voyage up the Amazon was like a journey to another planet; it was no less thrilling for the ordinary traveler than for the trained naturalist, for not only were the flora and fauna new and exciting, but also the habits and customs of the people were novel and unexpected. It was all very well to discover spiders so large that children tied strings to them and led them about like dogs, or to find vultures so intelligent that they went about lifting the lids off saucepans, or to see native ladies who wore bright calico dresses and smoked wooden or clay pipes, but, in the midst of it all, to find Indians doing Portuguese plays, or a clerk who had a library

consisting of Virgil, Terence, Cicero, and Livy—that was almost too much!³⁸

On the first section of the Amazon, from Pará to Santarem, where the natives fashioned drinking cups from gourds and painted them yellow, black, red, and blue with vegetable dyes and made soap from burnt cacao shells and *andiroba* oil, one also found the beginnings of the rubber industry.³⁹ The methods of collecting and processing rubber appear to have been fairly uniform. The trees were tapped and the sap allowed to run for several hours into a small clay cup.

After the day's run was collected and taken home to the *rancho*, "A fire is made on the ground of the seed of nuts of a palm-tree. . . . An earthen pot, with the bottom knocked out, is placed, mouth down, over the fire, and a strong pungent smoke from the burning seeds comes up through the aperture in the bottom of the inverted pot.

"The maker of the rubber now takes his last, if he is making shoes, or his mould, which is fastened to the end of a stick; pours the milk over it with a cup, and passes it slowly several times through the smoke until it is dry. He then pours on the other coats until he has the required thickness; smoking each coat until it is dry.

"Moulds are made either of clay or wood; if of wood, it is smeared with clay, to prevent the adhesion of the milk. When the rubber has the required thickness, the moulds are either cut out or washed out."⁴⁰

Rubber was exported in thick sheets or in bottle-shaped lumps. The molded products for local consumption were syringes, toys in the shape of birds and animals, or shoes. Twenty to forty coats of rubber were required to make a pair of shoes. The shoes were often still very sticky when sent down river, and it was necessary to hang them on long poles to keep them apart.

The export of rubber in 1860 was seven times that of 1840.⁴¹ The opening of steam navigation on the river in 1853

produced a sharp but brief advance in rubber prices, but "this feverish and unnatural state of things did not long continue."⁴² The foreign market was temporarily glutted; rubber prices on the Amazon dropped 50 percent from the high of 1854 and production also decreased. During the sixties and seventies, however, both prices and exports began to show a steady recovery.

The cosmology of this rubber world was a strange, but natural, one. Wallace⁴³ found that the United States was envisioned as a cluster of islands. He was often asked whether the people had *seringa* (rubber) or *manioc* there. When he explained that the climate was too cold to permit the growth of rubber trees or the cultivation of the *manioc*, people just shook their heads and said it must be a very poor country indeed.

Santarem, near the junction of the Tapajos and the Amazon, suffered in the rebellion of 1835 when "to be unable to speak the *lingoa geral* and to have a beard were crimes,"⁴⁴ but it was reviving in the fifties. Its principal exports were cacao and *castanha* nuts as well as some gold and diamonds that might be brought down the Tapajos. Among the imports were cheap German guns, British dry goods, soap from Salem, and Lowell shirtings; Herndon says, "It was strange, and very agreeable, to see flour barrels marked Richmond, and plain and striped cottons from Lowell . . ."⁴⁵ Fresh from the wilds of Peru and the upper Amazon, Herndon thought he could see signs of "increased civilization" at Santarem when he discovered a marble monument in the cemetery and a billiard table in the town.⁴⁶

Santarem was "a pretty little town . . . with its rows of tolerably uniform, white-washed and red-tiled houses surrounded by green gardens and woods."⁴⁷ There were no wheeled vehicles and the streets were overgrown with grass, but the town had a few foreign residents. One was Edward Jeffries, a British merchant, who was mentioned by Smyth and Lowe in 1835 and again by Spruce in 1849. Another was

the fabulous Captain Hislop, an old Scotchman who got all his learning from two books, Volney's *Ruins* and the Bible.⁴⁸ Hislop was a good friend to Wallace, Spruce, and Bates; it was at his house that Herndon met Bates in 1852.

At Santarem "The young folks are very musical, the principal instruments in use being the flute, violin, Spanish guitar, and a small four-stringed viola, called cavaquinho. . . . a little party of instrumentalists . . . used to serenade their friends . . . playing French and Italian marches and dance music with very good effect. The guitar was the favorite instrument of both sexes, as at Pará; the piano, however, is now fast superseding it. The ballads sung to the accompaniment of the guitar were not learned from written or printed music, but communicated orally from one friend to another. They were never spoken of as songs, but *modinhas*, or 'little fashions,' each of which had its day, giving way to the next favorite brought by some young fellow from the capital."⁴⁹

Agassiz was especially interested in one object in Santarem which brought back to him memories of von Martius, his old teacher:

"In 1819, Martius, the naturalist . . . was wrecked off the town of Santarem, and nearly lost his life. In his great danger he took a vow to record his gratitude, should he live, by making a gift to the church of Santarem. After his return to Europe, he sent from Munich a full-length figure of Christ upon the cross, which now hangs against the wall, with a simple inscription underneath, telling in a few words the story of his peril, his deliverance, and his gratitude. As a work of art, it has no special value, but it attracts many persons to the church who never heard of Martius."⁵⁰

Between Santarem and Manaus lay Serpa, later the site for steam sawmills and a brick factory, but a "wretched-looking village" in 1849.⁵¹ Bates spent a Christmas at Serpa: "In the morning all the women and girls, dressed in white gauze chemises and showy calico print petticoats, went in procession to church. . . . Three old squaws went in front,

holding the 'sairé,' a large semicircular frame, clothed with cotton and studded with ornaments, bits of looking glass, and so forth. This they danced up and down, singing all the time a monotonous whining hymn in the Tupí language, and at frequent intervals turning round to face the followers, who then all stopped for a few moments. I was told that this sairé was a device adopted by the Jesuits to attract the savages to church, for these everywhere followed the mirrors, in which they saw as it were reflected magically their own persons."⁵²

The Negroes in the town held their own ceremonies to the accompaniment of drums and rattles. Everybody got drunk, as was the custom on feast days, the Negroes and Indians excusing "their own intemperance by saying that the whites were getting drunk at the other end of town, which was quite true." It was like a celebrated feast at Pará at which all the Indians were accustomed "to fuddle in honor of St. Thomé."⁵³

At Serpa in the seventies a customs house had been established to handle the trade that came down the Madeira from Bolivia. The most noteworthy feature of this establishment was the gentleman in charge who wore a "chimney pot" hat and a black coat and waistcoat with buttons of green glass.⁵⁴

Situated at the junction of the Rio Negro and the Solimóens (the common name for the upper Amazon) was Barra, known as Manaus after 1852. This settlement had had a checkered history. Before the Indian uprisings in the thirties the town had prospered; then followed lean times until the establishment of the steamship line in 1853. Manaus subsequently profited from increased trade and the rubber boom only to relapse again with the fall of the rubber empire at the beginning of the twentieth century. In 1850 Barra had a population of about three thousand, mostly Indians, and its principal exports were salt fish, sarsaparilla, and turtle oil.⁵⁵

Before the Amazon Steamship Company began its opera-

tions food was often a problem at Barra, since much of it came from Pará. In January 1852 Herndon noted a scarcity of food in the town,⁵⁶ and by May the inhabitants had been reduced to farinha, fish, and turtles; even the rum had given out.

"No vessel had arrived from Para for five months, and all supplies were exhausted. Flour had long since been finished, consequently there was no bread; neither was there biscuit, butter, sugar, cheese, wine, nor vinegar; molasses even, to sweeten our coffee was very scarce."⁵⁷

The growth of population that occurred in the later fifties did not improve the situation because, although food was brought in regularly, it became very expensive. "None of the people who flocked to Barra on the establishment of the new government, seemed to care about the cultivation of the soil and the raising of food, although these would have been the most profitable speculations."⁵⁸

Ten years later, there was no sign of alleviation, as a quotation from Orton will show: "Laziness is the prominent characteristic. A gentleman offered an Indian passing his door twenty-five cents if he would bring him a pitcher of water from the river, only a few rods distant. He declined. 'But I will give you fifty cents.' Whereupon the half-clothed, penniless aboriginal replied: 'I will give you a dollar to bring me some.' While every inch of the soil is of exuberant fertility, there is always a scarcity of food. It is the dearest spot on the Amazon. Most of the essentials and all of the luxuries come from Liverpool, Lisbon, and New York. Agriculture is at a discount on the Amazon. Brazilians will not work; European immigrants are traders; nothing can be done with the Indians; and negroes are few in number."⁵⁹

In the sixties, Stevenson thought Manaus "looked very pretty from the river,"⁶⁰ but he found it hot, disagreeable, and poverty-stricken. Mrs. Agassiz remarked: "There is little to be said for the town of Manaus. It consists of a small collection of houses, half of which seem to be going to decay,

and indeed one can hardly help smiling at the tumble-down edifices, dignified by the name of public buildings.”⁶¹

In 1867 Orton predicted that the generation of inhabitants then living in Manaos would not survive to see the dedication of the cathedral which had been building there since 1853, and when Brown and Lidstone arrived in Manaos in 1873, the cathedral was still unfinished.⁶² There was only one hotel in town, but this in itself was noteworthy because it was the only one above Pará. The local authorities were in difficulty because they could not ascertain the correct time. Therefore they arranged for assistance from the officers of the steamer. At five minutes before twelve each day a large canvas ball was hoisted to the top of the steamer's mast as a warning signal; then, at precisely noon, the steamer struck eight bells, fired a gun, and dropped the ball.⁶³

There was a North American missionary in Manaos at this time (1873) who was conducting Protestant services at the house of a German merchant. The British travelers noted that the principal difference between the “American” and the Anglican services was that a blessing was asked for the president of the United States rather than for Queen Victoria, “but perhaps the most striking alteration is the changing of the word ‘wealth’ . . . into ‘prosperity.’ It would appear that our American cousins do not desire wealth!”⁶⁴

Before Barra became Manaos its white inhabitants were few, but they were interesting. There was Enrique Antonio, who carried on most of the trade of Barra in the thirties and who was a good friend to Bates two decades later; Antonio might not “give you the shirt off his back,” but he did use his socks to stop a leak in Bates's canoe.⁶⁵ In the fifties Hern- don encountered a fellow countryman, Marcus Williams, at Barra; this was the same Williams who built the gas works at Maranhã in 1870.⁶⁶ Another resident at Barra in 1852 was Hauxwell, the English botanist, whom Orton met in later years farther up the Amazon.⁶⁷

A partner of Enrique Antonio, a man named McCulloch,

was the proprietor of a sawmill near Barra. McCulloch had come to Pará in 1832 where he had been employed by James Campbell. After experimenting with a sugar mill near Serpa, McCulloch imported machinery for a sawmill from the United States. This he set up in the forties at Barra. Logs were rafted down the Solimóens to the mill, and the finished products were taken downriver for sale. The whole venture ended in failure about 1852 when the sawmill was destroyed by fire.⁶⁸

Most fascinating of all was the deaf and dumb North American, Baker, who visited Barra about 1851: "a very humorous and intelligent fellow, who was a constant fund of amusement both for the Brazilians and ourselves. He had been educated in the same institution with Laura Bridgman, as a teacher of the deaf and dumb. He seemed to have a passion for travelling probably as the only means of furnishing through his one sense the necessary amount of exercise and stimulus for his mind. He had travelled alone through Peru and Chile, across to Brazil, through Para to Barra, and now proposed going by the Rio Branco to Demerara, and so to the United States. He supported himself by selling the deaf and dumb alphabet, with explanations in Spanish and Portuguese. He carried a little slate on which he could write anything in English or French, and also a good deal in Spanish, so that always he could make his wants known."⁶⁹

Baker amused the assembled company by pretending to be a phrenologist. He would feel the head of a Brazilian or Portuguese and write down "very fond of the ladies." This never failed to please and astonish his subject who would exclaim "Very true!"⁷⁰ Poor Baker never saw the United States again. He died at Fort São Joaquim on the Brazilian-Venezuelan border a few months after leaving Barra. Wallace thought Baker died of jaundice, but Herndon suspected foul play.⁷¹

We may leave Barra with a description of the shy young native girls whom Spruce observed in the vicinity. The cos-

tume of these belles consisted of a *camisa*, "descending below the breasts," and the *saya*, or skirt; these garments *sometimes* met, says Spruce. Then he goes on: "young girls until marriageable rarely have more than one of these—either upper or lower, *n'importe*, but whichever it is, when a stranger approaches—the bashful maiden lifts her only garment to shade her eyes from the white man's gaze."⁷²

Or perhaps we should include as a companion piece to this Maw's story of the vicar-general and his telescope:

"This old gentleman frequently took his station on seats that were in front of his house . . . from which the prospect was agreeable, and he had got a telescope for extending his view . . . This telescope was much wondered at by the Indians, and dreaded by the women who went daily to bathe in the river, as they believed it had not only an approximating but an inverting or reverting power. Going down a good look-out was always kept on the padre's glass, and if it happened to be brought out whilst they were in the water, a rush was immediately made to get further in, or to run out and hide themselves. This was pretty nearly the amount of these females' modesty—chastity not being a virtue for which they are at present celebrated, or are likely to be celebrated during the continuance of the now existing system. Their alarms at the glass were however generally causeless; for, laying aside its not possessing the powers they attributed to it, they were not sufficiently fascinating to occasion the indecorum they imputed to the padre and his friends."⁷³

The next settlement above Barra was Teffé (Ega or Egas), where Bates spent four happy and profitable years. A tiny place, with a population of only a few hundred whites and Indians, most foreigners found enchantment there:

"Of all the little settlements we have seen on the Amazons, Teffé looks the most smiling and pleasant. . . . the town stands above a broad sand beach. The houses are generally built of mud, plastered over and roofed with tiles, or thatched

with palm. Almost all have a little ground about them, enclosed in a picket fence, and planted with orange trees and different kinds of palms. The green hill behind the town, on which cows and sheep are grazing, slopes up to the forest, and makes a pretty background to the picture."⁷⁴

Herndon spent a Christmas at Teffé, and went to mass on Christmas Eve in the little church where the hand organ "gave a squeak and a grunt now and then, but there were parts of the music when nothing could be heard but the turning of the handle."⁷⁵ Teffé enjoyed a lively trade on the river, and Herndon notes that "the higher classes are taking a little Champagne, Teneriffe wine, or English ale. Ginger beer is a favorite and wholesome drink in this climate. I was surprised to see no cider. I wonder some Yankee from below has not thought to send it up. Yankee clocks abound, and are worth from ten to twenty dollars."⁷⁶

The country around Teffé was known for its turtles. Most people there ate turtle the year round and derived much of their livelihood from the export of turtle butter made from turtle eggs. In July and August, when the turtles laid their eggs in the sand banks along the river, the villagers turned out in great numbers for the annual harvest of eggs. The turtles came up on the banks at night and retreated to the water at daylight:

"I mounted the sentinel's stage, just in time to see the turtles retreating to the water . . . The sight was well worth the trouble of ascending the shaky ladder. They were about a mile off, but the surface of the sands was blackened with the multitudes which were waddling towards the river; the margin of the praia was rather steep, and they all seemed to tumble head first down the declivity into the water."⁷⁷

When the turtles had completed their laying period of about two weeks, a day was set by the villagers for digging up the eggs, and every man, woman, and child turned out to participate in the work, which was carried out according to a set formula and with military precision. "When no more eggs

are to be found, the mashing process begins. . . . The whole heap is thrown into an empty canoe and mashed with wooden prongs; but sometimes naked Indians and children jump into the mass and tread it down, besmearing themselves with yolk and making about as filthy a scene as can well be imagined. This being finished, water is poured into the canoe, and the fatty mess then left for a few hours to be heated by the sun, on which the oil separates and rises to the surface. The floating oil is afterwards skimmed off with long spoons, made by tying large mussel-shells to the end of rods, and purified over the fire in copper kettles.”⁷⁸

In three gallon jars the oil was exported downriver; its principal use was for lighting, frying fish, “and other purposes.” Bates estimated that the annual production was about eight thousand jars, which implied the destruction of forty-eight million eggs each year. It was no wonder that the turtle population was on the decline. Between 1850 and 1859 the price of the turtles themselves rose from nine pence to nine shillings.”⁷⁹

Tabatinga, the tiny fort on the Brazilian-Peruvian border, was the terminus for the Amazon steamship line where connections were made with Peruvian steamers. At Tabatinga “the mosquitoes by night and the *Piums* by day are said to render life almost intolerable.”⁸⁰ The *pium* was a sand fly having a particularly vicious bite. As Herndon said: “It seems a merciful dispensation of Providence that the sand-flies go to bed at the same time with the people; otherwise I think one could not live in the country.”⁸¹

And Stevenson recalled: “After sunrise the mosquitoes were no sooner gone than the *piums* were out on the scent for blood.”⁸²

The alligators who haunted the Amazon and its tributaries were more easily avoided than the insects, but they were no less annoying. “Alligators were rather troublesome in the dry season. During these months there was almost always one or two lying in wait near the bathing place for anything that

might turn up at the edge of the water: dog, sheep, pig, child, or drunken Indian. When this visitor was about every one took extra care whilst bathing. I used to imitate the natives by not advancing far from the bank, and in keeping my eye fixed on that of the monster, which stares with a disgusting leer along the surface of the water.”⁸³

On one occasion an alligator tried to catch a dog beneath the hammock in which Bates was sleeping. The fabulous Waterton, the same man who cooled his sprained ankle in the torrents of Niagara, once caught an alligator and subdued it with a full nelson.⁸⁴ Brown and Lidstone described a common tableau along the river: three men were sitting on the bank with a recently killed *pirarucu* (a large fish): “Within ten yards of them were twenty-three alligators, with their heads above water and their noses almost touching the sand, patiently waiting until the fish was cut up, when they would come in for their share of it, in the parts thrown away by the men.”⁸⁵

Snakes, of course, abounded all along the river. At Pará, where people were reputed to keep boas to kill the rats, serpents were especially troublesome in the wet season.⁸⁶ There were numerous serpents of a most deadly variety which existed only in the popular imagination. Stevenson speaks of the *mordegente*, a winged snake with a deadly sting, and a gigantic serpent (*Madre de los Rios*) which must have been the same as Waterton’s *Watermamma* of Guiana.⁸⁷

In the waters, too, one found the savage *piranha*,⁸⁸ electric eels, relatives of the famous *gymnotos* which was “strangled at Paris as the result of an incautious experiment,”⁸⁹ and the *geophagi* who hatched their young in their mouths. This latter type was studied by Agassiz at Teffé:

“This same fish has a most extraordinary mode of reproduction. The eggs pass, I know not how, into the mouth, the bottom of which is lined by them. . . . There they are hatched, and the little ones, freed from the egg-case, are

developed until they are in a condition to provide for their own existence.”⁹⁰

Beyond Tabatinga in Peruvian territory Iquitos was the most lively spot. From a village of sixty inhabitants in 1835, and two hundred in 1851, Iquitos had a population exceeding two thousand by 1867.⁹¹ Here in 1867 was situated the government iron works, a floating dock, and the naval repairing station of the Peruvian government.⁹² Many British engineers and workmen were employed at Iquitos. Stevenson deplored the universal drunkenness of his fellow countrymen, and one visit to an evening dancing party was enough:

“The dancing was very curious, and so also were the women of various shades of colour, some of whom brought their babies with them. Men and women were cutting strange capers, the men holding their coat-tails in one hand and flourishing handkerchiefs in the other, smiling inanely at the antics of their own legs and feet, and looking supremely silly; the women prancing about, some of them pretty and graceful, but most of them far too fat for violent exercise in the hot stuffy little room, and visibly suffering from excessive perspiration.”⁹³

Up at Nauta, eighty miles away, there lay rotting the two steamers brought out from the United States in 1853 by Dr. Whittemore, a North American. These were the vessels mentioned by Herndon as being purchased for the Peruvian government.⁹⁴ “They were built in New York, of Georgia pine, costing Peru \$75,000, and reflected no credit on the United States.”⁹⁵

After the end of the Civil War in the United States, Southerners began to appear along the Amazon. Under ordinary conditions we should have expected that these exiles would have gone to the cotton producing areas of Brazil rather than to the tropical jungle, but it must not be forgotten that the attention of the South had been drawn to the Amazon in the decade before the “War between the

States." The expedition of Herndon and Gibbon had been the brain-child of Matthew Maury, that great scientist and loyal son of the South.⁹⁶ Maury was interested in the development of the Amazon as a market for the surplus slave population which was crowding the Virginia plantations, and he did his best to persuade the Brazilians to open the Amazon to the commerce of the world in 1853. In line with Maury's proposals Herndon commented upon the beauties of slavery in Brazil, "The negro slave seems very happy in Brazil. This is remarked by all foreigners," and then he says:

"I am under the impression that, were Brazil to throw off a causeless jealousy, and a puerile fear of our people, and invite settlers to the Valley of the Amazon, there might be found, among our Southern planters, men, who looking with apprehension (of not for themselves, at least for their children) to the state of affairs as regards slavery at home, would, under sufficient guarantees, remove their slaves to that country, cultivate its lands, draw out its resources, and prodigiously augment the power and wealth of Brazil."⁹⁷

And so, after the war, the Southerners came—to Manaus, to Santarem, and to other Amazonian towns.⁹⁸ "Many of them were soon disgusted with the country, and, if we are to believe reports, the country was disgusted with them."⁹⁹ Among the wanderers was the "rebel ex-General Dobbins," who was prospecting on the Tapajos River.¹⁰⁰ This was undoubtedly the same "Colonel" Dobbins mentioned by Brown and Lidstone in 1873: the "American" who planned a saw-mill on the Tapajos, but "had trouble" with his Indian labor.¹⁰¹

As Bates saw only too clearly, the Amazon was changing rapidly after mid-century, and the greatest single agent in bringing about the change was the steamboat. It was the symbol of the new Amazon, just as the *montaria* stood for the period before 1850. In the first half of the nineteenth century, the slow travel by canoe often caused the voyagers

to lose track of the passage of time so that "when two parties met on the river" they were likely to inquire, "What day is it with you?"¹⁰² After 1850: "Upon the Amazon, conversation is invariably commenced by referring to the numbers and ferocity of mosquitoes on the previous day or night, just as in England we greet a friend with some remark or other on the state of the weather."¹⁰³

On the other hand, the great hopes which were entertained for the Amazon as the spot where "the perfect race of the future will attain to complete fruition of man's beautiful heritage" were never realized. The white man could not feel at home there; even the Indians had not adjusted themselves to the climate.¹⁰⁴ For the civilized man the beauty of the Amazon was not enough to compensate for the loss of "the rich pleasures of intellectual society." Bates, who loved the great river as few foreigners were able to do, was finally forced to admit that:

"During this last night on the Pará river, a crowd of unusual thoughts occupied my mind. Recollections of English climate, scenery, and modes of life. . . . Pictures of startling clearness rose up of the gloomy winters, the long grey twilights, murky atmosphere, elongated shadows, chilly springs, and sloppy summers; of factory chimneys and crowds of grimy operatives, rung to work in early morning by factory bells; of union workhouses, confined rooms, artificial cares, and slavish conventionalities. To live again amidst these dull scenes, I was quitting a country of perpetual summer. . . . I was leaving the equator . . . to sail towards the North Pole . . . It was natural to feel a little dismayed at the prospect of so great a change; but now, after three years of renewed experience of England, I find how incomparably superior is civilised life where feelings, tastes, and intellect find abundant nourishment, to the spiritual sterility of half-savage existence, even though it be passed in the Garden of Eden."¹⁰⁵

Perhaps no other passage in all this travel literature so

completely expresses the attitude of the educated foreigner with regard to South America. The thoroughly civilized man could not revert to a state of nature. It was good to travel, but it was better to come home.

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———. *Letters from Buenos Ayres and Chili*. (London 1819.)

The letters in the preceding entry are dated in 1796 and 1797, while these date from 1804-13.

Davie is represented as an Englishman disappointed in love who came to the United States and then shipped out for Botany Bay. Due to illness he was left behind in Argentina where he assumed the guise of a Dominican and traveled through southern South America.

While the descriptive material has an air of the authentic, some of the narrative verges on the fabulous. Davie had a lively imagination, or else the letters are pure fiction. It is hard to decide.

*DE BONELLI, L. HUGH. *Travels in Bolivia*. (2 vols. London 1854.)

*DEBRET, JEAN BAPTISTE. *Voyage pittoresque et historique au Brésil* (1816-1831). (3 vols. Paris 1834-39.)

*DE MERSAY, L. ALFRED. *Histoire physique, économique, et politique du Paraguay*. (2 vols. Paris 1860-64.)

Cited by Du Graty, Mulhall, and Burton.

DE MOUSSY, V. MARTIN. *Description géographique et statistique de la Confédération Argentine*. (3 vols. Paris 1860.)

De Moussy lived many years in the Argentine, and his work is very detailed. Cited by DeRote, Du Graty, and Burton.

**Détails intimes sur l'état des lieux, des hommes et des choses au Paraguay*. (Marseille 1868.)

*DINGMAN, B. S. *Ten Years in South America*. (Montreal 1877.)

Deals with Peru and Bolivia.

DUFFIELD, A. J. *Peru in the Guano Age*. (London 1877.)

Peru in the seventies. Amusing, but biased and exaggerated.

DU GRATY, A. M. *La République du Paraguay*. (Brussels 1862.)

Paraguay about 1860. Quite detailed. Cited by DeRote, Burton, Mulhall.

DUNDAS, ROBERT. *Sketches of Brazil*. (London 1852.)

Discussion of medical practice in the tropics; also good description of Bahia from the twenties through the early forties.

DUNN, REVEREND BALLARD S. *Brazil, the Home for Southerners*. (New York 1866.)

Dunn, "late of the Confederate Army," had a vitriolic style as the following quotation about Southern office-seekers in the Reconstruction period will show:

"If you can conceive of a gang of old hyenas, that have been kept for four years in cages, upon half-rations of green persimmons, and poked up, daily, by a lot of mischievous boys, with sharp sticks (no allusion to bayonets), suddenly calming down; and then attempting with great earnestness to look sweet, and amiable, and dovelike; and even evincing a disposition to caress the dear boys

(radicals) that poked them, you have an illustration of what has happened." (Pp. iii-iv.)

EDWARDS, W. H. *A Voyage up the River Amazon*. (London 1847.)

The Amazon about 1846.

ENGLISH, HENRY A. *A General Guide to the Companies Formed for Working Foreign Mines*. (London 1825.)

Extremely important for the story of the South American mining ventures of the twenties.

*ESCHWEGE, W. L. VON. *Beitrage zur Gebirgskunde Brasiliens*. (Berlin 1832.)

EWBANK, THOMAS. *Life in Brazil*. (New York 1856.)

A North American description of Rio and the vicinity of the Brazilian capital about 1846. Above average.

*EXPILLY, JEAN CHARLES MARIE. *Le Brésil tel qu'il est*. (Paris 1862.)

Expilly was a maker of phosphorus matches, whose book, according to Burton, should have been called *Le Brésil tel qu'il n'est pas*.

Extinction pauperisme agricole par la colonization dans les provinces de la Plata. (Paris 1855.)

Just another pamphlet designed to lure poor unsuspecting Frenchmen to the land of the Silver River.

*FAMIN, C., and F. LA CROIX. *Chile, Paraguay, Uruguay, Buenos Aires, Patagonie* . . . (Paris 1840.)

*FAVRE, LEON. *La Bolivie*. (Paris 1853.)

FLETCHER, J. C., and D. P. KIDDER. *Brazil and the Brazilians*. (Philadelphia 1857.)

Not as good as the original work of Kidder published a decade earlier. Burton calls it "elaborate fulsome fluff." Popular in the United States, however.

*FLORENCE, HERCULES. *Viagem fluvial do tiete ao Amazonas de 1825-1829*. (São Paulo 1941.) Translated by Visc. de Taunay.

The diary of a botanist.

FRACKER, GEORGE. *Voyage to South America with an Account of a Shipwreck in the River La Plata in the year 1817 by the Sole Survivor*. (Boston 1826.)

*GABRIAC, ALEXIS. *Promenade à travers l'Amérique du Sud*. (2nd ed. Paris 1868.)

GARDNER, GEORGE. *Travels in the Interior of Brazil*. (London 1846.)

Rather good travel account with a wealth of small detail about little things of no great significance. Brazil in 1836.

*GELLY, JUAN ANDRÉS. *El Paraguay*. (Rio de Janeiro 1848.)

*GERSTAKER, FREDERICK. *Narrative of a Journey Round the World*. (3 vols. London 1853.)

———. *Gerstaker's Travels*. (London 1854.)

Probably a condensation of the preceding entry. The material on Argentina and Chile is not too bad.

GIBBON, LARDNER. *Exploration of the Valley of the Amazons*. (Washington 1854.)
Part II of Herndon's book.

Widely read in the United States. Gibbon is ungrammatical, but as an observer he is superior to Herndon.

*GILLESPIE, ALEXANDER. *Gleanings and Remarks*. (London 1818.)

Argentine travels that appear to have some importance. One regrets not having seen this.

GILLISS, JAMES M. *United States Naval Astronomical Expedition to the Southern Hemisphere During the Years 1849-1852*. (Washington 1855.)

The most complete description that exists of Chile in the fifties. It is critical, apparently with justice, and the Chileans (according to MacRae and Baxley) simmered for years about the Gilliss report.

GRAHAM, MARIA. *Journal of a Residence in Chile During the Year 1822*. (London 1824.)

An excellent account, with fine illustrations.

*———. *Journal of a Voyage to Brazil, and Residence There, during part of the Years 1821, 1822, 1823*. (London 1824.)

*GRANDIDIER, ERNEST. *Voyage dans l'Amérique du Sud, Pérou et Bolivie*. (Paris 1861.)

HADFIELD, WILLIAM. *Brazil, the River Plate, and the Falkland Islands*. (London 1854.)

Hadfield came out in 1853. He is cited by Burton and Mulhall.

HAIGH, SAMUEL. *Sketches of Buenos Ayres, Chile and Peru*. (London 1831.)

Another British merchant-adventurer like Alexander Caldcleugh. Haigh was a friend of Consul Woodbine Parish and General William Miller. He fought on the Chilean side in the Battle of Maipú.

HALL, CAPTAIN BASIL. *Extracts from a Journal Written on the Coasts of Chile, Peru and Mexico in the Years 1820, 1821, and 1822*. (4th ed. 2 vols. Edinburgh 1825.)

This famous traveler, who later visited the United States, served with the Royal Navy on the West Coast. A valuable, readable account.

HEAD, FRANCIS B. *Journeys Across the Pampas and Among the Andes*. (London 1826.)

This was a best seller in the twenties (see Introduction). It went through many editions, although I cannot see that its present value is any greater than the contemporary accounts of Hall, Miers, Caldcleugh, Haigh, Schmidtmeier, etc.

*———. *Reports Relating to the Failure of the Río Plata Mining Association*. (London 1827.)

HENDERSON, JAMES. *History of the Brazil*. (London 1821.)

Henderson went out to Brazil in 1819. Well illustrated, this is a valuable sketch of Brazil in the period.

HERNDON, WILLIAM L. *Exploration of the Valley of the Amazon*. (Washington 1854.)

The companion volume to Gibbon's book.

HIBBERT, EDWARD. *Narrative of a Journey from Santiago de Chile to Buenos Ayres in July and August 1821.* (London 1824.)

Particularly interesting because Hibbert was forced to travel somewhat north of the usual route across the pampas.

HILL, S. S. *Travels in Peru and Mexico.* (2 vols. London 1860.)

Travels made in the years 1849-50. Undistinguished.

*HINCHLIFF, T. W. *South American Sketches.* (London 1863.)

Brazil and La Plata. Cited by Burton, Hutchinson, and Mulhall.

HUMBOLDT, ALEXANDER VON. *Personal Narrative of Travels to the Equinoctial Regions of the New Continent, during the Years 1799-1804.* (7 vols. London 1814-29.) Translated by Helen Maria Williams.

There were innumerable editions in several languages of this famous and popular account.

HUNTER, D. J. *A Sketch of Chili expressly Prepared for the Use of Immigrants from the United States and Europe.* (New York 1866.)

Largely based on official Chilean census of 1863.

*HUTCHINSON, THOMAS J. *Journey Through the Salado Valley.* (London 1860.)

———. *Buenos Ayres and Argentine Gleanings.* (London 1865.)

Good survey of the place of the British residents in the Argentine economy of this period.

———. *The Parana.* (London 1868.)

Something of a rehash of the preceding entry, but some new material.

———. *Two Years in Peru.* (2 vols. London 1873.)

Hutchinson arrived in Peru in 1871. Fairly good descriptive material.

*ISABELLE, ARSÈNE. *Voyage à Buenos Ayres et à Porto Alegre, par la Banda-Oriental, les Missions d'Uruguay et la province de Rio Grande do Sul.* (Havre 1835.)

Isabelle was a friend of Bonpland. Cited by Burton and De Moussy.

*JACQUES, AMADÉE. *Excursions au Rio Salado et dans le Chaco.* (Paris 1857.)

Cited by Burton and Hutchinson.

*JOHNSON, ROSS. *A Long Vacation in the Argentine Alps.* (London 1868.)

Cited by Burton.

JOHNSTON, S. B. *Letters written during a Residence of Three Years in Chile.* (Erie, Pennsylvania, 1816.)

Johnston came to Santiago in 1812 to print *La Aurora de Chile*. This is a rare and interesting book.

**Journal written on Board His Majesty's Ship Cambridge by the Rev. H. S. Chaplain.* (Newcastle 1829.)

*KAHL, A. *Reisen durch Chile und die westlichen Provinzen Argentinien.* (Berlin 1866.)

KELLER, F. *The Amazon and Madeira Rivers.* (London 1874.)

The Amazon and the Madeira in 1867. Beautifully illustrated.

KENNEDY, A. J. *La Plata, Brazil, and Paraguay during the Present War.* (London 1869.)

Superficial.

KIDDER, D. P. *Sketches of a Residence and Travels in Brazil.* (2 vols. Philadelphia 1845.)

Infinitely better than many books about foreign lands by missionaries, this work was very popular in the United States. Kidder went to Brazil in 1837. He had a flair for description, and his book contains interesting material about missionaries in Brazil and the temperance movement.

KING, J. ANTHONY. *Twenty-four Years in the Argentine Republic.* (London 1846.)

A true soldier of fortune, King led a fabulous life in northern Argentina. One of the most amusing parts of King's book relates his encounter with Temple. King, a bluff and direct North American, evidently was nettled by the aristocratic Temple, who was young and more than a little flip, as his own writings show. In King's account both are shown completely in character:

"I met with a gentleman, who, on learning my name and rank, introduced himself as Sir Edmond Temple. . . . I inquired of Sir Edmond the object through which the Argentine had been honoured with his presence. He replied, that he was on a travelling visit to the country, seeking information.

"And do you discover any thing worthy of the trouble you have taken?" I inquired.

"Not much," he replied. "I did, however, fall in with a very extraordinary large bird called the condor."

"Oh, yes," said I; "There are great numbers of them about the Cordilleras."

"But this was one of extraordinary size; it measured sixteen feet from wing to wing, and would have carried off an ox," he replied.

"My dear sir, you exaggerate."

"Well," said he, "perhaps I do; but it would have certainly borne away a calf."

"I thought it would have been difficult for any bird to bear away as large a one as I could name; nevertheless, I acquiesced." (King, pp. 185-86.)

KOSTER, H. *Travels in Brazil.* (London 1816.)

Koster came to Pernambuco in 1809. His description is detailed, and the book is beautifully illustrated.

*LANGSDORF, GEORGE HEINRICH VON. *Voyages and travels in various parts of the world during the years 1803, 1804, 1805, 1806, and 1807.* (Philadelphia 1817.) A translation.

*———. *Bermerkungen über Brasilien.* (Heidelberg 1821.)

LATHAM, W. *The States of the River Plate.* (London 1866.)

Much about cattle and sheep raising in Argentina.

*L. C. *Relation d'un voyage fait récemment dans les provinces de la Plata.* (Paris 1818.)

*LEDE, CHARLES VON. *De la colonisation du Brésil.* (Bruxelles 1843.)

LINBLEY, THOMAS. *Narrative of a Voyage to Brazil.* (London 1805.)

Lindley was blown ashore at Bahia in 1802. Much about the condition of the city at that early date.

***LOVE, ———**. *A Five Years' Residence in Buenos Ayres during the Years 1820-1825*. (2nd ed. London 1827.)

This book is usually listed as "by an Englishman," but Mulhall (p. 330) identifies the author as a man named Love who was the editor of the Buenos Ayres newspaper called *The British Packet* (1826-52).

LUCCOCK, JOHN. *Notes on Rio de Janeiro and the Southern Parts of Brazil*. (London 1820.)

Luccock was in Brazil for a decade (1808-18). For a description of his career see Herbert Heaton, "A Merchant Adventurer in Brazil," *Journal of Economic History*, Vol. VI (1946), pp. 1-23.

MACCANN, WILLIAM. *Two Thousand Miles' Ride Through the Argentine Provinces*. (2 vols. London 1853.)

MacCann was in the Argentine in 1848. Much about sheep.

***MACCHETI, JESUALDO**. *Diario del viage fluvial desde San Buenaventura y Reyes hasta el Atlántico*. (La Paz 1869.)

***M'COLL, JOHN**. *Life in the River Plate*. (London 1862.)

Some termed it "all rot and rubbish," says Burton.

*———. *Guide to Montevideo*. (London 1862.)

MACRAE, ARCHIBALD. *Report of Journeys across the Andes and Pampas of the Argentine Provinces*. (Washington 1855.)

This is Part II of the Gilliss report on Chile. MacRae did not always take life seriously, but his report contains much good description.

MANSFIELD, C. B. *Paraguay, Brazil, and the Plate*. (Cambridge, England, 1856.)

Mansfield visited South America in 1852-53. He is cited by Du Graty, Mulhall, and Burton, but his work is not as good as his contemporaries seemed to think it was.

***MANSFELDT, JULIUS**. *Meine Reise nach Brasilien im Jahre 1826*. (2 vols. Magdeburg 1828.)

***MANTEGAZZA, PAOLO**. *Rio de la Plata e Tenerife*. (2nd ed. Milan 1870.)

He visited the Plate area in 1855, 1858, 1861, and 1863.

MARCOY, PAUL. *A Journey Across South America*. (2 vols. London 1873.)

Marcy was the pen name of Laurent St. Cricq. The illustrations are very fine.

MARKHAM, CLEMENTS R. *Cuzco*. (London 1856.)

This is the record of a visit to Cuzco in 1852.

———. *Travels in Peru and India*. (London 1862.)

This contains, among other things, a long discussion on the history of the use of cinchona bark (quinine).

***MARMIER, XAVIER**. *Lettres sur l'Amérique*. (2 vols. Paris 1851.)

MASTERMAN, G. F. *Seven Eventful Years in Paraguay*. (London 1869.)

Masterman served as chief military apothecary for the Paraguayan forces during the Paraguayan War. Cited by Burton and Mulhall.

MATHEWS, E. P. *Up the Amazon and Madeira Rivers, through Bolivia and Peru.* (London 1879.)

An arduous journey undertaken in the seventies. Amusing, but not significant.

MATHISON, G. F. *Narrative of a Visit to Brazil, Chile, Peru and the Sandwich Islands.* (London 1825.)

Mathison was in South America in 1821 and 1822. Much useful material.

MAW, H. L. *Journal of a Passage from the Pacific to the Atlantic.* (London 1829.)

Down the Marañon and the Amazon to Pará in 1827.

MAWE, JOHN. *Travels in the Interior of Brazil.* (London 1812.)

Mawe began his travels in Montevideo and Buenos Ayres about 1807 and then moved up into Brazil.

MAXIMILIAN OF NIEUEWIED, PRINCE. *Travels in Brazil.* (London 1825.)

Maximilian traveled in Brazil in 1815-17. Much good material on the country around Rio.

MAXIMILIAN I, EMPEROR OF MEXICO. *Recollections of My Life.* (3 vols. London 1868.)

Volume III deals with his voyage to Brazil in 1859-60.

*MAXWELL, DANIEL. *Planillas estadísticas de la exportación en los años desde 1849 à 1862 con algunas observaciones sobre ellos y la economica rural de nuestro país.* (Buenos Aires 1863.)

Cited by both Hutchinson and DeRote.

*MAYER ARNOLD, F. *Del Plata à los Andes.* (Buenos Aires 1944.)

Journey across the Argentine Republic in 1860.

MERWIN, MRS. C. B. *Three Years in Chile.* (New York 1863.)

Mrs. Merwin accompanied her husband, George, to Chile in 1853. He was United States consul at Valparaiso (where Bishop met him in 1854).

MIERS, JOHN. *Travels in Chile and La Plata.* (2 vols. London 1826.)

One of the best and most detailed of the early travel accounts. This book covers his experiences in Chile and the Argentine from 1819-25. He was later employed at both Buenos Ayres and Rio de Janeiro in setting up mint machinery. With his reputation as a South American expert established, we last see him reading proof for Gardner's book in 1846.

MILLER, J. *The Memoirs of General Miller.* (2 vols. London 1828.)

General William Miller was one of San Martín's best officers, who also enjoyed the confidence of Bolívar. He saw at firsthand the Argentine, Chile, Peru, and Bolivia.

MORE, J. L. *Le Brésil en 1852.* (Paris 1852.)

A Swiss colonization pamphlet. Exceedingly untruthful.

MULHALL, M. G. *Handbook of the River Plate.* (Buenos Aires 1863.)

This is a veritable mine of information. There are many subsequent editions.

———. *Rio Grande do Sul.* (London 1873.)

Record of a journey to Rio Grande do Sul in 1871.

———. *The English in South America*. (Buenos Aires 1878.)

Extremely useful.

MULHALL, MRS. M. G. *Between the Amazon and the Andes*. (London 1881.)

The Argentine and Uruguay in the seventies. Superficial.

MURRAY, J. H. *Travels in Uruguay*. (London 1871.)

Murray came out from England in 1868.

*NILES, J. M. *A View of South America*. (New York 1826.)

———. *History of South America and Mexico*. (Hartford 1837.)

Feeble.

NUNEZ, IGNACIO. *An Account, Political, Historical, and Statistical of the United Provinces of the Rio de la Plata*. (London 1825.)

ORBIGNY, ALCIDE DESSALINES D'. *Voyage Pittoresque dans les deux Amériques*. (Paris 1836.)

Not particularly valuable.

*———. *Voyage dans l'Amérique méridionale*. (9 vols. Paris 1835-37.)

ORTON, JAMES. *The Andes and the Amazon*. (New York 1870.)

From Ecuador to Pará in 1867.

OUSELEY, WILLIAM GORE. *Views of South America*. (London 1852.)

A series of sketches of Bahia, Rio, Montevideo, and Buenos Aires. Interesting.

*PACHECO Y OBES, GENERAL ORIENTAL. *Le Paraguay, son passé, son présent, et son avenir*. (Paris 1851.)

Cited by Burton.

PAGE, THOMAS JEFFERSON. *La Plata, the Argentine Confederation and Paraguay*. (New York 1859.)

The Plate in the fifties. Extremely useful. Regarded by contemporaries as authoritative. Cited by Du Graty, De Moussy, Mulhall, Hutchinson, and Burton.

PARISH, WOODBINE. *Buenos Ayres and the Provinces of the Rio de la Plata*. (London 1839.)

Parish was in Buenos Ayres 1824-32. He had access to, and used, many good sources to which he added his own personal experiences.

PAYNE, A. R. M. *The GERAL Milco*. (New York 1852.)

Aztecs in the Amazon! This book is pure fantasy written by a person who probably never left North America.

PAZOS KANKI, DON VICENTE. *Letters on the United Provinces of South America*. (London and New York 1819.) Translated by P. H. Crosby.

Propaganda addressed to Henry Clay. Apparently read by Niles.

PEABODY, G. A. *South American Journal (1858-59) of G. A. Peabody*. (Salem 1937.) Edited by J. C. Phillips.

First-rate description of the Argentine and Chile.

*PERKINS, WILLIAM. *Letters concerning the country of the Argentine Republic (South America) being suitable for emigrants and capitalists to settle in.* (London 1869.)

*POEFFIG, EDUARD FREDERICH. *Reise in Chile, Peru, und auf dem Amazonen Stromme Während der Jahre 1827-1832.* (2 vols. Leipsic 1835-36.)

*POHL, JOHANN EMANUEL. *Reise im Innern von Brasilien.* (2 vols. Vienna 1832-33.)

PROCTOR, ROBERT. *Narrative of a Journey across the Cordillera of the Andes.* (London 1825.)

Agent for a British loan to Peru, Proctor arrived in Buenos Aires in 1823. One of the most sensitive and skillful writers among the travelers of the twenties, Proctor makes good reading.

*RADIQUET, MAXIMILIEN. *Souvenirs de l'Amérique Espagnole: Chile-Pérou-Brésil.* (Paris 1856.)

**Random Sketches of Buenos Aires, with explanatory notes.* (Edinburgh 1868.)

Recueil Consulaire Belge. Vols. 1-18. (Brussels 1856-72.)

These Belgian consular reports are distinguished by the amazingly full descriptions of economic and social life in Chile and Buenos Aires which were prepared in the late fifties and early sixties by the indefatigable DeRote, the consul general. British and North American reports look positively amateurish beside these monuments to consular industry.

RENGGER, JOHANN R., and LONGCHAMPS. *The Reign of Doctor Gaspard Roderick de Francia in Paraguay.* (London 1827.)

One of the few descriptions of Paraguay for this period. Not very helpful.

**Republic of Uruguay, a manual for emigrants.* (London 1862.)

The author is possibly John M'Coll.

RICKARD, F. I. *The Mineral and other Resources of the Argentine Republic in 1869.* (London 1870.)

Optimistic, but useful.

ROBERTSON, W. P. and J. P. *Letters on Paraguay.* (2 vols. London 1838.)

These were widely read. J. P. Robertson came to Montevideo in 1806, visited Brazil in 1808, and went to Paraguay in 1811 where he was joined by his brother in 1813.

———. *Letters on South America.* (3 vols. London 1843.)

These letters deal with the later experiences of the Robertsons as traders in the Argentine. It is to be regretted that they never wrote about their experiences in Chile and Peru.

RODNEY, C. A., and JOHN GRAHAM. *The Reports on the Present State of the United Provinces of South America.* (London 1819.)

The reports of the American commissioners who visited Buenos Aires in 1817-18. See also entries under Bland and Brackenridge.

*ROY, JUSTE JEAN ÉTIENNE. *Mes voyages avec le docteur Philips dans les républiques de la Plata.* (2nd ed. Tours 1863.)

*RUGENDAS, JOHANN M. *Voyage pittoresque dans le Brésil*. (Paris 1835.) Translated by M. de Golbéry.

RUSCHENBERGER, WILLIAM S. W. *Three Years in the Pacific*. (Philadelphia 1834.)

A naval surgeon, Ruschenberger had tours of duty in South American waters in 1826-29 and 1831-34.

*SAINT-HILAIRE, AUGUSTIN DE. *Voyages dans l'intérieur du Brésil*. (8 vols. Paris 1830-51.)

Very important. One regrets not having seen this.

SARMIENTO, DOMINGO F. *Life in the Argentine Republic*. (New York 1868.) Translated by Mrs. Horace Mann.

Wide circulation in the United States.

SAY, HORACE. *Histoire des relations commerciales entre la France et le Brésil*. (Paris 1839.)

Excellent on the history of the Bank of Brazil and the subsequent monetary difficulties of the Brazilian Empire.

*SCARLETT, PETER C. *South America and the Pacific*. (2 vols. London 1838.)

*SCHLICHTHORST, CARL. *Rio de Janeiro wie es ist*. (Hannover 1829.)

SCHMIDTMEYER, PETER. *Travels into Chile over the Andes in the Years 1820 and 1821*. (London 1824.)

Useful. Exceptionally fine illustrations.

SCULLY, WILLIAM. *Brazil; its Provinces and Chief Cities*. (London 1866.)

Not quite up to the standard set by Mulhall. Scully was editor of the *Anglo-Brazilian Times*.

*SEIDLER, CARL. *Brasiliens kriegs- und revolutions-geschichte seit dem Jahre 1825 bis auf unsere Zeit*. (Leipzig 1837.)

SEYMOUR, R. A. *Pioneering in the Pampas*. (London 1869.)

More about sheep, but good reading.

*SHILLIBEER, J. *A Narrative of the Briton's Voyage to Pitcairn Island*. (3rd edition. London 1818.)

*SIDNEY, HENRY. *The Travels and Extraordinary Adventures of Henry Sidney in Brazil in the Years 1809, 1810, 1811, and 1812*. (London 1815.)

SKINNER, JOSEPH. *The Present State of Peru*. (London 1805.)

Nicely illustrated. Translations from the *Mercurio Peruano* with a commentary.

SKOOGMAN, C. *Fregatten Eugenies Resa Omkring Jorden Aren 1851-1853*. (Stockholm 1855.)

Rio, the Plate, Chile, and Peru in 1851-52. Exceptional illustrations.

*SMITH, ARCHIBALD. *Peru as It Is*. (2 vols. London 1839.)

SMYTH, W. and F. LOWE. *Narrative of a Journey from Lima to Para*. (London 1836.)

Down the Amazon in 1834-35.

*SOMMER-GEISER. *Lebensbilder aus dem Staate Uruguay*. (Basel 1861.)

SOUTHEY, ROBERT. *History of Brazil*. (3 vols. London 1810-19.)

A basic work much used by nineteenth century British and North American writers on Brazil.

*SPIX, J. B. VON, and C. F. P. VON MARTIUS. *Reise in Brasilien*. (3 vols. Munich 1823-31.)

———. *Travels in Brazil (1817-1820)*. (2 vols. London 1824.)

A translation of a portion of the preceding entry. One of the best of the Brazilian accounts in this period.

SPRUCE, RICHARD. *Notes of a Botanist on the Amazon and the Andes*. (2 vols. London 1908.) Edited by A. R. Wallace.

Spruce came out to the Amazon in 1849 and returned to England in 1864. These journals are much more personal than those of Bates, but they contain a wealth of material.

SQUIER, E. G. *Peru*. (New York 1877.)

Squier came to Peru in the early seventies. While not too informative, it is good reading.

STEWART, C. S. *Brazil and La Plata*. (New York 1856.)

Chaplain on the Congress, Stewart visited Brazil and the Plate around 1850.

STEVENSON, FREDERICK JAMES. *A Traveller in the Sixties*. (London 1929.) Edited by Douglas Timins.

Extracts from the diaries of Stevenson (1867-69) relating to travels on the Amazon, across the pampas, into Chile and southern Peru. Extremely good.

STEVENSON, W. B. *Historical and Descriptive Narrative of Twenty Years' Residence in South America*. (3 vols. London 1829.)

Stevenson came to South America about 1805. He traveled in Chile and Peru. Quantity, but not always quality.

STRAIN, I. G. *Sketches of a Journey to Chile, and the Argentine Provinces in 1849*. (New York 1853.)

Fairly useful.

STURTZ, J. J. *A Review, Financial, Statistical, and Commercial of the Empire of Brazil and its Resources*. (London 1837.)

Mostly financial. Should be read along with Horace Say.

SUTCLIFFE, THOMAS. *Sixteen Years in Chile and Peru*. (London 1841.)

Sutcliffe was in Chile 1822-39.

TEMPLE, EDMOND. *Travels in Various Parts of Peru*. (2 vols. London 1830.)

Temple, a rich young idler, wangled a secretarial job in the Potosi, La Paz, and Peruvian Mining Association (organized 1825). He came out to Bolivia and stayed with the company until it collapsed in 1826. A similar failure beset the Anglo-Chilean Company in which Caldcleugh was involved and the Chilean and Peruvian Company which Andrews represented. Andrews, Head, Miers, Beaumont, and General Miller all had different explanations for the collapse of the mining ventures. In the beginning, it had been thought that British capital,

science, and machinery would bring the mines to a new level of production, but Head maintained that the expense of importing machinery would cut profits, and Miers pointed out that circumstances in Latin America justified the methods of the colonial period. Andrews said that it was too expensive to import Cornish or German miners; rather, capital was what was needed to get the mines back into production. After the collapse of the mining bubble, there was a tendency to blame the promoters and the operators for the failure, but Temple laid the blame squarely upon the investors who withdrew their money when the crash threatened, instead of providing funds to carry over a bad period. In the following quotation from his book, the first commissioner mentioned is Paroissien (Temple's chief), the second is Andrews, and the third is Head:

"... though one chief commissioner lolled in his carriage in mimic state, and knew nothing of the use of his cargo of philosophical instruments . . . that a second, loitered from town to town, and altogether ignorant of the 'poetry of motion' should have blushed at his own ungracefulness in a fandango with the blithe *muchachas* of Tucuman . . . that a third, priding himself on riding 'upwards of six thousand miles against time,' should have galloped and continued galloping,—galloped and galloping, gallop, galloped, and galloping, galloping, galloping, galloping, day and night, like a very fury on horseback—forgive them their innocent mirth, for it was not these doings, that occasioned the public disappointment, the heavy losses, and the general failure which so soon followed." (Vol. II, 88-90.)

TERRY, A. R. *Travels in the Equatorial Regions of South America in 1832*. (Hartford 1834.)

Mostly on northern South America, but it contains one very sensible remark: "All comparisons drawn between the United States and the South American Republics must be unjust, unless we take into consideration and give full weight to the different condition of the two countries, before the yokes of the parent nations were cast off." (P. 271.)

THOMPSON, GEORGE. *The War in Paraguay*. (London 1869.)

Not too useful. Cited by Burton and Mulhall.

*THOMSON, JAMES. *Letters on the Moral and Religious State of South America*. (London 1827.)

TSCHUDI, J. J. VON. *Travels in Peru (1838-1842)*. (London 1847.) Translated by Thomasina Ross.

One of the more famous travel books on Peru.

VIDAL, E. E. *Picturesque Illustrations of Buenos Ayres and Montevideo*. (London 1820.)

A beautiful book. A handsome facsimile edition was issued in Buenos Aires in 1943.

VIGNE, G. T. *Travels in Mexico, South America, etc., etc.* (2 vols. London 1863.) Limited usefulness.

VOWELL, R. L. *Memorias de un oficial de marina inglés al servicio de Chile durante los años de 1821-1829*. (Santiago de Chile 1923.) Translation by J. T. Medina.

More narrative than description.

WALLACE, A. R. *Travels on the Amazon and Rio Negro*. (London 1853.)

A companion volume to those of Bates and Spruce for the Amazon in the middle nineteenth century.

*WALPOLE, FRED. *Four Years in the Pacific, 1844-1848*. (London 1849.)

WALSH, R. *Notices of Brazil in 1828-1829*. (2 vols. London 1830.)

Useful, mostly for Rio.

WARREN, J. E. *Para*. (New York 1851.)

A North American in Pará and Marajó.

WATERTON, CHARLES. *Wanderings in South America in 1812, 1816, 1820, 1824*. (London 1825.)

Waterton only touched at Pernambuco and did reach Fort São Joaquim on the northern border of Brazil on one occasion. The rest of his time was spent in the Guianas.

WEBSTER, W. H. B. *Narrative of a Voyage to the Southern Atlantic Ocean*. (2 vols. London 1834.)

Webster ranged the eastern coast of South America in 1828-30.

WEDDELL, H. A. *Voyage dans le nord de la Bolivie*. (Paris 1853.)

Weddell was one of the Castelnau party. He was in Peru and Bolivia in 1851. Mostly about quinine, but he gives some Indian melodies arranged for the piano and some good recipes.

*WETHERELL, JAMES. *Stray Notes from Bahia*. (Liverpool 1860.)

*WHITTLE, W. *Journal of a Voyage to the River Plate*. (Manchester 1846.)

WILKES, CHARLES. *Narrative of the United States Exploring Expedition during the Years 1838, 1839, 1840, 1841, 1842*. (5 vols. Philadelphia 1845.)

Volume I is quite useful.

WISE, LT. USN. *Los Gringos*. (New York 1849.)

Wise never heard of the Good Neighbor Policy. This is an impossible book. He should have been court-martialed.

The following is a brief list of other books which might be added to the foregoing bibliography.

BEECHY, F. W. *Narrative of a Voyage to the Pacific (1825-1828)*. (Philadelphia 1832.)

This contains some description of Concepción in Chile about 1825.

BOSCH SPENCER, G. H. *Statistique commerciale du Chili, de la Bolivie, du Pérou, de l'Equateur, de la Nouvelle Grenade . . .* (Brussels 1860.)

Employed by DeRote in the compilation of some of his reports.

EARDLEY-WILMOT, S. *Our Journal in the Pacific*. (London 1873.)

Some description of the west coast. Pretty routine.

*HILL, HENRY. *Incidents in Chile, South America, 1817-1821*. (Weymouth 1889.)

I have not seen this, but it may contain descriptive as well as narrative material.

*LAFOND DE LUCY, G. *Quinze ans de voyages autour de monde*. (Paris 1840.)

Passages from this work are quoted in Picón-Salas (see in the next section).

*LAMBERTIE, F. *Voyage pittoresque en Californie et au Chili*. (Paris 1854.)

LESSON, P. *Voyage autour du monde*. (2 vols. Paris 1839.)

Brazil and Chile. Not too detailed or novel.

*MAYNARD, F. *Voyages et aventures au Chili*. (Paris 1858.)

PETIT-THOMAS, A. DU. *Voyage autour du monde sur la frigate Venus*. (3 vols. Paris 1841.)

Volume 2 deals with the west coast.

PFEIFFER, IDA. *A Lady's Voyage Round the World*. (New York 1852.)

Nothing out of the ordinary.

REYNOLDS, R. N. *Voyage of the United States Frigate Potomac*. (New York 1835.)

Just another chaplain circumnavigating the globe.

*ROSALES, F. X. *Progreso de la agricultura Europea y mejoras particulares en la de Chile*. (Paris 1855.)

SÈVE, E. *La Patria Chilena: Chile tel qu'il est*. (Valparaiso 1876.)

A fairly good survey of conditions in the seventies.

TAYLOR, F. W. *Voyage Round the World*. (New Haven 1848.)

Unimpressive.

WARREN, T. R. *Dust and Foam*. (New York 1858.)

Just that.

A few books about travelers and immigrants in South America.

ALSINA, J. A. *La inmigración europea en la república argentina*. (Buenos Aires 1898.)

ARRIETA, R. A. *Centuria Porteña*. (Buenos Aires 1944.)

CORDERO, C. J. *Los relatos de los viajeros extranjeros posteriores a la revolución de Mayo*. (Buenos Aires 1936.)

CUTRIGHT, P. R. *The Great Naturalists Explore South America*. (New York 1940.)

DODDS, JAMES. *Scottish Settlers in the River Plate and Their Churches*. (Buenos Aires 1897.)

KOEBEL, W. H. *British Exploits in South America*. (New York 1917.)

MELLO-LEITAO, C. DE. *O Brasil visto pelos ingleses*. (São Paulo 1937.)

MULHALL, M. G. *The English in South America*. (Buenos Aires 1878.)

MURRAY, THOMAS. *The Irish in Argentina*. (New York 1919.)

PICON-SALAS, M., and G. F. CRUZ. *Imágenes de Chile*. (2nd ed., Santiago 1937.)

VICUNA MACKENNA, B. *The first Britons in Valparaiso*. (Valparaiso 1884.)

VON HAGEN, V. W. *South America Called Them*. (New York 1945.)

Buenos Aires visto por viajeros ingleses, 1800-1825. (Buenos Aires 1941.)

Notes

Introduction

- ¹ Peter Schmidtmeier, *Travels into Chile* (London 1824), 34.
² A. F. Frezier, *A Voyage to the South Sea* (London 1717).
³ Jorge Juan and Antonio de Ulloa, *A Voyage to South America* (2 vols. London 1758).
⁴ Alexander von Humboldt, *Personal Narrative of Travels to the Equinoctial Regions of the New Continent* (Vol. I published in Philadelphia 1815).
⁵ Edmond Temple, *Travels in Various Parts of Peru* (2 vols. London 1830), II, 89.
⁶ W. P. and J. P. Robertson, *Letters on Paraguay* (2 vols. London 1838), I, 47-48.

Chapter I

- ¹ Humboldt, *Personal Narrative*, I, 53.
² George Fracker, *Voyage to South America* (Boston 1826), 8; G. A. Peabody *South American Journal* (Salem 1937), 30.
³ Maximilian I, Emperor of Mexico, *Recollections of My Life* (3 vols. London 1868), III, 1ff.
⁴ M. G. Mulhall, *Handbook of the River Plate* (Buenos Aires 1885), 107.
⁵ Charles Brand, *Journal of a Voyage to Peru* (London 1828), 321.
⁶ Basil Hall, *Extracts from a Journal* (2 vols. 5th ed., Edinburgh 1826), II, 307ff.
⁷ Joseph Andrews, *Journey from Buenos Ayres* (2 vols. London 1827), II, 192.
⁸ Humboldt, *op. cit.*, I, 243.
⁹ A. R. Wallace, *Travels on the Amazon* (London 1853), 271.
¹⁰ *Ibid.*, 272.
¹¹ F. Gerstäker, *Gerstäker's Travels* (London 1854), 1.
¹² *Ibid.*, 1-2.
¹³ F. J. Stevenson, *A Traveller in the Sixties* (London 1929), 1-2.
¹⁴ Humboldt, *op. cit.*, I, 236.
¹⁵ *Ibid.*, 240-42.
¹⁶ Maximilian, *op. cit.*, III, 68.
¹⁷ *Ibid.*, 69. See also R. A. Seymour, *Pioneering in the Pampas* (London 1869), 4.
¹⁸ Frezier, *op. cit.*, 15; R. Walsh, *Notices of Brazil* (2 vols. London 1830), I, 114.
¹⁹ Schmidtmeier, *op. cit.*, 9.
²⁰ Maximilian, *op. cit.*, III, 89.
²¹ C. B. Mansfield, *Paraguay, Brazil, and the Plate* (Cambridge, England, 1856), 23.
²² A. R. Terry, *Travels in the Equatorial Regions of South America* (Hartford 1834), 51-52.
²³ Maximilian, *op. cit.*, III, 91-92.

Chapter II

¹ Quoted by G. F. Masterman, *Seven Eventful Years in Paraguay* (London 1869), xiv.

² Woodbine Parish, *Buenos Ayres and the Provinces of the Rio de la Plata* (London 1839), 14-15. See also E. E. Vidal, *Picturesque Illustrations of Buenos Ayres and Montevideo* (London 1820), 15; Samuel Haigh, *Sketches of Buenos Ayres* (London 1831), 9; R. F. Burton, *Letters from the Battlefields of Paraguay* (London 1870), 150ff.

³ Schmidtmeier, *Travels*, 15.

⁴ *Ibid.*, 15; Parish, *op. cit.*, 14; H. M. Brackenridge, *Voyage to South America* (2 vols. Baltimore 1819), I, 277.

⁵ Peabody, *South American Journal*, 107-8.

⁶ For descriptions of the waterfront see Schmidtmeier, *op. cit.*, 15; Brand, *Journal of a Voyage*, 288; C. B. Mansfield, *Paraguay*, 128.

⁷ Temple, *Travels*, I, 61.

⁸ *Ibid.*, I, 63; J. A. B. Beaumont, *Travels in Buenos Ayres* (London 1828), 82; Andrews, *Journey from Buenos Ayres*, I, 19; Brand, *op. cit.*, 34.

⁹ Beaumont, *op. cit.*, 102.

¹⁰ J. Miller, *Memoirs of General Miller* (2 vols. London 1828), II, 348; Parish, *op. cit.*, 42; Haigh, *op. cit.*, 13; Darwin, *Voyage of the Beagle* (Everyman's Library, no. 104), 114-15; Brackenridge, *op. cit.*, I, 283.

¹¹ Brackenridge, *op. cit.*, I, 290; Vidal, *op. cit.*, 23.

¹² Darwin, *op. cit.*, 115.

¹³ J. C. Davie, *Letters from Paraguay* (London 1805), 113. A sentiment echoed by many others.

¹⁴ G. T. Vigne, *Travels in Mexico, Southern America, etc.* (2 vols. London 1863), I, 200.

¹⁵ Darwin, *op. cit.*, 114.

¹⁶ William Gore Ouseley, *Views of South America* (London 1852).

¹⁷ Peabody, *op. cit.*, 109.

¹⁸ W. Latham, *The States of the River Plate* (2nd ed. London 1868), 7; Alcide Dessalines d'Orbigny, *Voyage pittoresques dans les deux Amériques* (Paris 1836), 258.

¹⁹ F. B. Head, *Journeys across the Pampas and among the Andes* (London 1826), 36.

²⁰ Stevenson, *op. cit.*, 102. See also Parish, *op. cit.*, 49-50; W. H. B. Webster, *Narrative of a Voyage to the Southern Atlantic Ocean* (2 vols. London 1834), I, 89-90.

²¹ Archibald MacRae, *Report of Journeys Across the Andes* (Washington 1855), 49.

²² Beaumont, *op. cit.*, 75.

²³ Parish, *op. cit.*, 37.

²⁴ John Miers, *Travels in Chile and La Plata* (2 vols. London 1826), I, 5.

²⁵ Robertson, *Letters on Paraguay*, I, 188-89.

²⁶ Davie, *op. cit.*, 159.

²⁷ Andrews, *op. cit.*, I, 83 and 97.

²⁸ George Fracker, *Voyage to South America*, 114.

²⁹ *Ibid.*, 114; Brackenridge, *op. cit.*, II, 63-64.

³⁰ Haigh, *op. cit.*, 27; Temple, *op. cit.*, I, 64; W. P. and J. P. Robertson, *Letters on South America* (3 vols. London 1843), III, 124-25.

³¹ Fracker, *op. cit.*, 114; Beaumont, *op. cit.*, 83.

- ³² Robertson, *Letters on South America*, III, 124-25.
³³ Andrews, *op. cit.*, I, 18; Beaumont, *op. cit.*, 83; Temple, *op. cit.*, I, 64.
³⁴ Gerstäker, *Travels*, 39.
³⁵ Mulhall, *Handbook* (1875), 76; T. J. Hutchinson, *Buenos Aires and Argentine Gleanings* (London 1865), 10; Burton, *op. cit.*, 170.
³⁶ Peabody, *op. cit.*, 114.
³⁷ Mrs. M. G. Mulhall, *Between the Amazon and the Andes* (London 1881), 4.
³⁸ *Receuil Consulaire Belge*, Vol. 10 (Brussels 1864), 328. Henceforth quoted as *RCB*.
³⁹ Parish, *op. cit.*, 35. For earlier statistics, see M. Burgin, *Economic Aspects of Argentine Federalism, 1820-1852* (Cambridge, Massachusetts, 1946), 41-43.
⁴⁰ C. S. Stewart, *Brazil and La Plata* (New York 1856), 397; Beaumont, *op. cit.*, 84; Parish, *op. cit.*, 41; Vidal, *op. cit.*, 19 and 33; Brackenridge, *op. cit.*, I, 288.
⁴¹ Head, *op. cit.*, 260-61.
⁴² *British Consular Reports on the Trade and Politics of Latin America, 1824-1826* (edited by R. A. Humphreys, London 1940), 26. Henceforth quoted as *BCR*.
⁴³ On the British see M. G. Mulhall, *The English in South America* (Buenos Aires 1878), 325 and 330; A. Caldcleugh, *Travels in South America* (2 vols. London 1825), I, 175; William MacCann, *Two Thousand Miles' Ride Through the Argentine Provinces* (2 vols. London 1853), II *passim*.
⁴⁴ *BCR*, 12.
⁴⁵ Robertson, *Letters on South America*, III, 143-44; Mrs. Mulhall, *op. cit.*, 6 and 14.
⁴⁶ *BCR*, 26-27 and *passim*; Burgin, *op. cit.*
⁴⁷ Haigh, *op. cit.*, 30.
⁴⁸ *BCR*, 56.
⁴⁹ Miller, *Memoirs*, II, 364.
⁵⁰ *BCR*, 46.
⁵¹ Beaumont, *op. cit.*, 1-7.

Chapter III

- ¹ Temple, *Travels*, I, 75.
² Head, *Journeys* (3rd ed. 1827), 51.
³ J. C. Davie, *Letters from Buenos Ayres and Chili* (London 1819), 20ff.
⁴ Schmidtmeier, *Travels*, 145.
⁵ Temple, *op. cit.*, I, 220.
⁶ Miers, *Travels*, I, 20.
⁷ Beaumont, *Travels*, 196.
⁸ *Ibid.*, 65.
⁹ Davie, *Letters from Paraguay*, 119-20.
¹⁰ Peabody, *South American Journal*, 125-26; confirmed by Miers, *op. cit.*, I, 44.
¹¹ For the literature on the *gaucho*, see M. Nichols, *The Gaucho* (Durham, N.C., 1942). Lacking in her bibliography are Schmidtmeier, Bladh, and Skogman.
¹² Vidal, *Picturesque Illustrations*, 51; Caldcleugh, *op. cit.*, I, 172.
¹³ D. F. Sarmiento, *Life in the Argentine Republic* (New York 1868), 20.
¹⁴ Andrews, *Journey*, I, 121-22.
¹⁵ Miers, *op. cit.*, I, 142.

- ¹⁶ Latham, *op. cit.*, 56.
- ¹⁷ Seymour, *Pioneering in the Pampas*, 105-6; T. J. Hutchinson, *The Parana* (London 1868), 94-95.
- ¹⁸ Andrews, *op. cit.*, I, 27.
- ¹⁹ Darwin, *Beagle*, 42-43; Vidal, *op. cit.*, 85.
- ²⁰ Andrews, *op. cit.*, I, 27.
- ²¹ Robertson, *Letters on South America*, II, 214.
- ²² Darwin, *op. cit.*, 315.
- ²³ *Ibid.*, 315-16.
- ²⁴ T. J. Page, *La Plata, the Argentine Confederation, and Paraguay* (New York 1859), 93-94. See also Robertson, *Letters on Paraguay*, I, 194.
- ²⁵ Mrs. Mulhall, *Between the Amazon*, 150.
- ²⁶ Mansfield, *Paraguay*, 163.
- ²⁷ Darwin, *op. cit.*, 118.
- ²⁸ Robert Proctor, *Narrative of a Journey across the Cordillera of the Andes* (London 1825), 28.
- ²⁹ Preston James, *Latin America* (New York 1942), 324.
- ³⁰ Seymour, *op. cit.*, 29.
- ³¹ Peabody, *op. cit.*, 125; Vidal, *op. cit.*, 100.
- ³² Peabody, *op. cit.*, 124.
- ³³ MacRae, *op. cit.*, 26.
- ³⁴ Miers, *op. cit.*, I, 117.
- ³⁵ Proctor, *op. cit.*, 44; Brand, *Journal*, 69.
- ³⁶ Andrews, *op. cit.*, I, 128.
- ³⁷ Temple, *Travels*, I, 136.
- ³⁸ Proctor, *op. cit.*, 48; Haigh, *Sketches*, 78: "Were I to live to the age of a pelican, I could never forget sweet Mendoza."
- ³⁹ Haigh, *op. cit.*, 84ff.
- ⁴⁰ MacRae, *op. cit.*, 16.
- ⁴¹ Head, *Journeys*, 67; Caldcleugh, *Travels*, I, 288.
- ⁴² MacRae, *op. cit.*, 17.
- ⁴³ Miers, *op. cit.*, I, 153, 164, 227-28; Haigh, *op. cit.*, 36, 281; Proctor, *op. cit.*, 50-51; Caldcleugh, *Travels*, I, 284-86; Brand, *op. cit.*, 80.
- ⁴⁴ Caldcleugh, *op. cit.*, I, 289-91.
- ⁴⁵ Vigne, *Travels*, I, 276.
- ⁴⁶ Haigh, *op. cit.*, 81.
- ⁴⁷ *Ibid.*, 89.
- ⁴⁸ Head, *Journeys*, 120.
- ⁴⁹ Miers, *op. cit.*, I, 164ff.
- ⁵⁰ Head, *op. cit.*, 128-29.
- ⁵¹ See Chapter VI.
- ⁵² Peabody, *South American Journal*, 157.
- ⁵³ Head, *op. cit.*, 148-49.
- ⁵⁴ Peabody, *op. cit.*, 159.

Chapter IV

- ¹ Sarmiento, *Life in the Argentine Republic*, 22.
- ² BCR, 64.
- ³ Webster, *Narrative of a Voyage*, I, 86.
- ⁴ *Ibid.*, I, 86; BCR, 64.
- ⁵ Webster, *op. cit.*, I, 87.

- ⁶ Mulhall, *The English in South America*, 338-39; 510-11.
- ⁷ William Hadfield, *Brazil, the River Plate, and the Falkland Islands* (London 1854), 251.
- ⁸ Stewart, *Brazil and La Plata*, 170-71; Mulhall, *op. cit.*, 339.
- ⁹ Stewart, *op. cit.*, 95-96.
- ¹⁰ Hutchinson, *Parana*, 346-47.
- ¹¹ J. H. Murray, *Travels in Uruguay* (London 1871), 43.
- ¹² Stevenson, *Traveller in the Sixties*, 97.
- ¹³ A. J. Kennedy, *La Plata, Brazil, and Paraguay during the Present War* (London 1869), 10.
- ¹⁴ Murray, *op. cit.*, 57 and 67; Peabody, *South American Journal*, 53.
- ¹⁵ Peabody, *op. cit.*, 64; Mrs. Mulhall, *Between the Amazon*, 75.
- ¹⁶ Murray, *op. cit.*, 115; Mrs. Mulhall, *op. cit.*, 73.
- ¹⁷ Murray, *op. cit.*, 48; Burton, *Letters from the Battlefields*, 116.
- ¹⁸ T. J. Page, *La Plata, the Argentine Confederation, and Paraguay* (New York 1859), 55-56.
- ¹⁹ *Ibid.*, 61.
- ²⁰ Peabody, *op. cit.*, 35.
- ²¹ Citation given in full in note 18 above.
- ²² Robertson, *Letters on Paraguay*, I, 194.
- ²³ MacRae, *Report of Journeys*, 41; Peabody, *op. cit.*, 119.
- ²⁴ Peabody, *op. cit.*, 118.
- ²⁵ Hutchinson, *Parana*, 162; See his *Buenos Ayres and Argentine Gleanings* (79-80) for statistics for 1860 and 1862.
- ²⁶ Stevenson, *op. cit.*, 103.
- ²⁷ Page, *op. cit.*, 86.
- ²⁸ *Ibid.*, 87.
- ²⁹ Hutchinson, *Parana*, 242.
- ³⁰ Robertson, *op. cit.*, I, 200-4.
- ³¹ Robertson, *Letters on South America*, I, 52-53.
- ³² *Ibid.*, I, 261.
- ³³ Mansfield, *Paraguay*, 241-42.
- ³⁴ *Ibid.*, 132; Darwin, *Beagle*, 127; MacRae, *op. cit.*, 42-43; Robertson, *Letters on Paraguay*, II, 204ff.
- ³⁵ Peabody, *op. cit.*, 39-40. For another description see C. Skogman, *Fregatten Eugenies Resa Omkring Jorden Åren 1851-1853* (Stockholm 1855), 51.
- ³⁶ MacCann, *Two Thousand Miles' Ride*, I, 212-13.
- ³⁷ *Ibid.*, I, 214-15.
- ³⁸ W. Latham, *States of the River Plate* (London 1866), 45. On the several methods for preserving meat see Hutchinson, *Parana*, 225-32.
- ³⁹ MacCann, *op. cit.*, I, 214-15.
- ⁴⁰ *Ibid.*, I, 68.
- ⁴¹ Murray, *Uruguay*, 191, 229; for other figures see *Commercial Relations of the United States* (1866), 809. Henceforth quoted as *USCR*.
- ⁴² Burton, *Letters from the Battlefields*, 91.
- ⁴³ Seymour, *Pioneering in the Pampas*, 24ff.
- ⁴⁴ *Ibid.*, 94.
- ⁴⁵ Murray, *op. cit.*, 99.
- ⁴⁶ Seymour, *op. cit.*, 150; Mulhall, *Handbook* (1885), 180; F. I. Rickard, *Mineral and other Resources of the Argentine Republic in 1869* (London 1870), 272.
- ⁴⁷ Page, *op. cit.*, 266.

- ⁴⁸ Mrs. Mulhall, *op. cit.*, 9.
- ⁴⁹ Mulhall, *Handbook* (1885), 182.
- ⁵⁰ Mrs. Mulhall, *op. cit.*, 121.
- ⁵¹ Mulhall, *op. cit.*, 184.
- ⁵² Mulhall, *English in South America*, 341; Hutchinson, *Parana*, 419.
- ⁵³ Taken from Mulhall, *Handbook* (1875).
- ⁵⁴ Hutchinson, *Buenos Ayres*, 38.
- ⁵⁵ *RCB*, vol. 9 (1863), 245ff.
- ⁵⁶ *Ibid.*, vol. 10 (1864), 186ff.
- ⁵⁷ *Ibid.*, vol. 10 (1864), 364-65. This is the paper, not the silver, peso.
- ⁵⁸ Miller, *Memoirs*, II, 331.
- ⁵⁹ Andrews, *Journey*, I, 86-88.
- ⁶⁰ Temple, *Travels*, I, 92-94.
- ⁶¹ Page, *La Plata*, 350.
- ⁶² Rickard, *op. cit.*, 264-66, 276; Hutchinson, *op. cit.*, 209.
- ⁶³ Page, *op. cit.*, 425.
- ⁶⁴ Andrews, *op. cit.*, I, 159; Temple, *op. cit.*, I, 132.
- ⁶⁵ Page, *op. cit.*, 361.
- ⁶⁶ Mulhall, *Handbook* (1885), 535.
- ⁶⁷ James, *Latin America*, 291ff.
- ⁶⁸ Temple, *op. cit.*, I, 140-42; Miller, *op. cit.*, II, 328.
- ⁶⁹ Rickard, *op. cit.*, 246.
- ⁷⁰ *Ibid.*, 232.
- ⁷¹ *Ibid.*, 231; Vigne, *Travels*, I, 246; Hutchinson, *Buenos Ayres*, 184; Hermann Burmeister, *Descripción de Tucumán* (translated by Cesáreo Wessel, Buenos Aires 1916), 53ff.
- ⁷² Richard, *op. cit.*, 324.
- ⁷³ *BCR*, 52; V. M. de Moussy, *Description géographique et statistique de la Confédération Argentine* (3 vols. Paris 1860), I, 129, 135.
- ⁷⁴ Temple, *op. cit.*, II, 471.
- ⁷⁵ King, *Twenty-four Years*, 145, 222, 330.
- ⁷⁶ Parish, *Buenos Ayres*, xi-xiii; Vigne, *op. cit.*, I, 264.
- ⁷⁷ Mansfield, *Paraguay*, 262.
- ⁷⁸ Page, *op. cit.*, 261; Vigne, *op. cit.*, I, 212; Mulhall, *Handbook* (1875), 43-44.
- ⁷⁹ Page, *op. cit.*, 261-62.
- ⁸⁰ Mulhall, *Handbook* (1885), 4.
- ⁸¹ Sir Walter Scott, *Life of Napoleon Buonaparte* (2 vols. Exeter 1828), I, 465.

Chapter V

- ¹ W. P. and J. P. Robertson, *Letters on Paraguay* (2 vols. London 1838), I, 335.
- ² The work cited in note 1.
- ³ J. R. Rengger and Longchamps, *The Reign of Doctor Gaspard Roderick de Francia in Paraguay* (London 1827).
- ⁴ Woodbine Parish, *Buenos Ayres and the Provinces of the Rio de la Plata* (London 1839), iii ff.
- ⁵ Robertson, *op. cit.*, I, 229.
- ⁶ *BCR*, 49.
- ⁷ *Idem.*
- ⁸ Robertson, *op. cit.*, I, 274-75.

⁹ Masterman, *Seven Eventful Years*, 13.

¹⁰ Robertson, *op. cit.*, I, 288.

¹¹ *Ibid.*, I, 289.

¹² *Ibid.*, I, 293-94.

¹³ *Ibid.*, I, 308ff.

¹⁴ *Ibid.*, I, 277-78.

¹⁵ *Ibid.*, I, 331.

¹⁶ *Ibid.*, I, 333-35; Rengger, *op. cit.*, 41.

¹⁷ Rengger, *op. cit.*, 41; Robertson, *op. cit.*, II, 2.

¹⁸ Rengger, *op. cit.*, 80, 115.

¹⁹ Page, *La Plata*, 299.

²⁰ Mansfield, *Paraguay*, 388.

²¹ Page, *op. cit.*, 117.

²² *Idem.*

²³ Page, *op. cit.*, 304ff; H. F. Peterson, "Edward A. Hopkins, a Pioneer Promoter," *Hispanic American Historical Review*, 22 (1942), 245-61; see also L. J. Johnson in *ibid.*, 26 (1946), 19-37.

²⁴ Mulhall, *English in South America*, 364; A. M. du Graty, *La Republique du Paraguay* (Brussels 1862), 153.

²⁵ G. F. Masterman, *Seven Eventful Years in Paraguay* (London 1869).

²⁶ Cited above in note 24.

²⁷ Robertson, *op. cit.*, II, 145ff; Page, *op. cit.*, 585.

²⁸ Du Graty, *op. cit.*, 289ff; 359ff; Page, *op. cit.*, 336.

²⁹ *USCR* (1861), 453.

³⁰ *Idem*; Du Graty, *op. cit.*, 158; Mulhall, *English*, 504.

³¹ Hutchinson, *Parana*, 306; Kennedy, *La Plata*, 181-82.

³² Masterman, *op. cit.*, 19.

³³ George Thompson, *The War in Paraguay* (London 1869), 190.

³⁴ F. S. Haydon, "Documents relating to the first military balloon corps organized in South America," *Hispanic American Historical Review*, 19 (1939), 504-17.

³⁵ Page, *op. cit.*, 134.

³⁶ *Ibid.*, 139-40.

Chapter VI

¹ *BCR*, 93.

² Darwin, *Beagle*, 240-41.

³ B. Vicuña Mackenna, *The First Britons in Valparaiso* (Valparaiso 1884), 8.

⁴ Frezier, *Voyage to the South Sea*, 117.

⁵ Vicuña Mackenna, *op. cit.*, 20.

⁶ D. B. Goebel, "British trade to the Spanish colonies," *American Historical Review*, 43 (1938), 288-320.

⁷ B. W. Diffie, *Latin American Civilization* (Harrisburg, Pennsylvania, 1945), 370.

⁸ *Ibid.*, 431.

⁹ *Ibid.*, 433.

¹⁰ Davie, *Letters from Buenos Ayres*, 303.

¹¹ Haigh, *Sketches*, 122, 177, 182ff.

¹² Theodorick Bland, *The Present State of Chile* (London 1820), 55.

¹³ *Voyages of a Merchant Navigator* (Edited by H. W. S. Cleveland, New York 1886), 168; see also W. L. Neuman, "United States Aid to the Chilean

War of Independence," *Hispanic American Historical Review*, 26 (1946), 251-62.

¹⁴ Bland, *op. cit.*, 81.

¹⁵ Schmidtmeier, *Travels*, 287.

¹⁶ Haigh, *op. cit.*, 176ff; Juan and Ulloa, *Voyage*, II, 275ff.

¹⁷ Miers, *Travels*, II, 60.

¹⁸ Hall, *Extracts from a Journal*, II, 275.

¹⁹ *Ibid.*, I, 41; Miers, *op. cit.*, II, 60.

²⁰ Miers, *op. cit.*, II, 240.

²¹ Hall, *op. cit.*, II, 51.

²² *Ibid.*, I, 89.

²³ Schmidtmeier, *op. cit.*, 298; Caldcleugh, *Travels*, I, 358.

²⁴ *BCR*, 92, 97-98.

²⁵ *Ibid.*, 92; Schmidtmeier, *op. cit.*, 298.

²⁶ Maria Graham, *Journal of a Residence in Chile* (London 1824), 201, 206, 209.

²⁷ Vicuña Mackenna, *op. cit.*, 35-37.

²⁸ Graham, *op. cit.*, 125, 131.

²⁹ Darwin, *op. cit.*, 145; see also Lafond du Lucy in Picón-Salas, *Imágenes de Chile*, 79-80.

³⁰ S. B. Johnston, *Letters Written during a Residence of Three Years in Chile* (Erie, Pennsylvania, 1816), 180.

³¹ George Byam, *Wanderings in some of the western Republics of South America* (London 1850), 55ff.

³² Frezier, *op. cit.*, 63.

³³ Johnston, *op. cit.*, 24; Hall, *op. cit.*, I, 148.

³⁴ Hall, *op. cit.*, I, 147-69; Byam, *op. cit.*, 70ff.

³⁵ Hipólito Ruiz, *Travels of Ruiz, Pavon, and Dombey in Peru and Chile* (Chicago 1940), 127, 131, 139. This is B. E. Dahlgren's translation published in Vol. 21 of the Botanical Series of the Field Museum of Natural History. See also Darwin, *Beagle*, 267, and Miers, *Travels*, II, 297.

³⁶ Schmidtmeier, *op. cit.*, 319.

³⁷ Miers, *op. cit.*, II, 296.

³⁸ W. B. Stevenson, *Historical and Descriptive Narrative of Twenty Years' Residence in South America* (3 vols. London 1829), I, 120.

³⁹ Schmidtmeier, *op. cit.*, 319.

⁴⁰ James M. Gilliss, *United States Naval Astronomical Expedition to the Southern Hemisphere during the Years 1849-1852* (Washington 1855), 234.

⁴¹ Darwin, *op. cit.*, 244; Ruiz, *op. cit.*, 129, 152; Davie, *op. cit.*, 108ff; Bland, *op. cit.*, 25; Proctor, *Narrative*, 109; Brand, *Journal*, 162.

⁴² Schmidtmeier, *op. cit.*, 251; Stevenson, *op. cit.*, I, 40-41.

⁴³ Mathison, *Narrative*, 211; Miers, *op. cit.*, II, 378; Peabody, *South American Journal*, 53; Stevenson, *op. cit.*, I, 40.

⁴⁴ Miers, *op. cit.*, II, 328; Graham, *Journal*, 188.

⁴⁵ Darwin, *Beagle*, 242-43.

⁴⁶ On Chilean gold see Darwin, *op. cit.*, 253-55; Thomas Sutcliffe, *Sixteen Years in Chile and Peru* (London 1841), 94.

⁴⁷ Davie, *Letters from Buenos Ayres*, 72, 110.

⁴⁸ Schmidtmeier, *Travels*, 268-70; Miers, *op. cit.*, II, 390ff; Frezier, *Voyage*, 155ff.

⁴⁹ Hall, *op. cit.*, II, 14; Miers, *op. cit.*, II, 401.

⁵⁰ Hall, *op. cit.*, II, 17, 29.

⁵¹ Darwin, *op. cit.*, 326; Byam, *Wanderings*, 48-50; Head, *Journeys*, 193ff.

- ⁵² Mulhall, *English in South America*, 353; Darwin, *op. cit.*, 331.
- ⁵³ Andrews, *Journey*, II, 213, 225-26.
- ⁵⁴ Darwin, *op. cit.*, 248.
- ⁵⁵ Sutcliffe, *op. cit.*, 103.
- ⁵⁶ Miers, *op. cit.*, II, 316.
- ⁵⁷ Haigh, *Sketches*, 139; Caldcleugh, *op. cit.*, 356.
- ⁵⁸ Sutcliffe, *op. cit.*, 191.
- ⁵⁹ Stevenson, *Historical and Descriptive Narrative*, I, 34.
- ⁶⁰ Bland, *op. cit.*, 27.
- ⁶¹ Mathison, *op. cit.*, 194.
- ⁶² Graham, *Journal*, 219.
- ⁶³ Mathison, *op. cit.*, 305ff.
- ⁶⁴ I. G. Strain, *Sketches of a Journey to Chile* (New York 1853), 57.
- ⁶⁵ William S. W. Ruschenberger, *Three Years in the Pacific* (Philadelphia 1834), 118.
- ⁶⁶ Brackenridge, *Voyage*, I, 288; in Argentina a bladder of cream was tied to the tail of a horse (Vidal, *Picturesque Illustrations*, 34).
- ⁶⁷ Bland, *op. cit.*, 64.
- ⁶⁸ Graham, *op. cit.*, 234.
- ⁶⁹ Miers, *op. cit.*, II, 287.
- ⁷⁰ *Ibid.*, II, 280; Graham, *op. cit.*, 186; Schmidtmeier, *Travels*, 297; Sutcliffe, *op. cit.*, 12.
- ⁷¹ Schmidtmeier, *op. cit.*, 298; Miers, *op. cit.*, II, 275.
- ⁷² Schmidtmeier, *op. cit.*, 318.
- ⁷³ Mulhall, *op. cit.*, 356.
- ⁷⁴ Miers, *op. cit.*, II, 289-90.
- ⁷⁵ *Ibid.*, II, 327.
- ⁷⁶ Miller, *Memoirs*, II, 225.
- ⁷⁷ Graham, *Journal*, 172ff.
- ⁷⁸ George Vancouver, *A Voyage of Discovery to the North Pacific Ocean* (3 vols. London 1798), III, 418.
- ⁷⁹ Proctor, *Narrative*, 102.
- ⁸⁰ Bland, *op. cit.*, 32; Miers, *op. cit.*, II, 326.
- ⁸¹ Gilliss, *op. cit.*, 187.
- ⁸² Darwin, *op. cit.*, 251.
- ⁸³ Ruiz, *Travels*, 113.
- ⁸⁴ Proctor, *op. cit.*, 103; Schmidtmeier, *op. cit.*, 326.
- ⁸⁵ Johnston, *op. cit.*, 185-86; W. Colton, *Deck and Port* (New York 1850), 205; H. W. Baxley, *What I Saw on the West Coast of North and South America* (New York 1865), 208; Charles Wilkes, *Narrative of the United States Exploring Expedition, etc.* (5 vols. Philadelphia 1845), I, 177.
- ⁸⁶ Colton, *op. cit.*, 181.
- ⁸⁷ *Ibid.*, 182.
- ⁸⁸ Ruiz, *op. cit.*, 110.
- ⁸⁹ Hall, *Journal*, I, 133; Proctor, *op. cit.*, 112.
- ⁹⁰ Johnston, *op. cit.*, 20.
- ⁹¹ Brand, *Journal*, 173.
- ⁹² Vicuña Mackenna, *First Britons*, 39; Miers, *op. cit.*, I, 441ff.
- ⁹³ Wilkes, *op. cit.*, I, 167.
- ⁹⁴ Ruiz, *op. cit.*, 158.
- ⁹⁵ Miers, *op. cit.*, I, 427.
- ⁹⁶ Vancouver, *op. cit.*, III, 442.

⁹⁷ Johnston, *op. cit.*, 31; Miers, *op. cit.*, I, 428ff.

⁹⁸ Ruschenberger, *Three Years*, 125; Sutcliffe, *op. cit.*, 17; Proctor, *Narrative*, 97.

⁹⁹ Head, *Journeys*, 163-64.

¹⁰⁰ Graham, *Journal*, 24, 157; Miers, *op. cit.*, II, 446-47.

¹⁰¹ Graham, *op. cit.*, 235.

¹⁰² Caldcleugh, *op. cit.*, I, 365.

¹⁰³ Haigh, *op. cit.*, 269; Graham, *op. cit.*, 218-19.

¹⁰⁴ Graham, *op. cit.*, 131, 202; Johnston, *op. cit.*, 182.

¹⁰⁵ Head, *op. cit.*, 105.

¹⁰⁶ Wilkes, *op. cit.*, I, 169-70; see also Hall, *Journal*, I, 13ff.

¹⁰⁷ MacRae, *Report of Journeys*, 4; Hall, *op. cit.*, I, 17, 53.

¹⁰⁸ Caldcleugh, *op. cit.*, I, 371; Graham, *Journal*, 169.

¹⁰⁹ Stevenson, *op. cit.*, I, 17; Schmidtmeier, *op. cit.*, 348.

¹¹⁰ Miers, *op. cit.*, II, 236; Hibbert, *Narrative of a Journey*, 26.

¹¹¹ Vicuña Mackenna, *op. cit.*, 33.

¹¹² Vancouver, *op. cit.*, III, 428.

¹¹³ Haigh, *Sketches*, 172.

¹¹⁴ Schmidtmeier, *op. cit.*, 252.

¹¹⁵ Darwin, *Beagle*, 251.

¹¹⁶ *Ibid.*, 256.

¹¹⁷ Hall, *Journal*, I, 140.

¹¹⁸ Brand, *Journal*, 162.

¹¹⁹ Stevenson, *op. cit.*, I, 30.

¹²⁰ Hall, *op. cit.*, I, 31, 143ff.

¹²¹ Hibbert, *op. cit.*, 14.

¹²² Gerstäker, *Travels*, 116-17.

¹²³ Ruiz, *op. cit.*, 153; Schmidtmeier, *op. cit.*, 298; Hall, *op. cit.*, I, 24.

¹²⁴ Darwin, *op. cit.*, 258.

¹²⁵ *Ibid.*, 259.

NOTE. The article by J. F. Rippey and J. Pfeiffer, "Notes on the Dawn of Manufacturing in Chile," *Hispanic American Historical Review*, 28 (1948), 292-303, appeared after this manuscript had gone to the press. Messrs. Rippey and Pfeiffer apparently did not have access to the RCB. This is unfortunate, because the detailed reports of DeRote in the sixties and his successors in the period 1870-1900 are infinitely more useful than the USCR.

Chapter VII

¹ Gilliss, *U. S. Naval Astronomical Expedition*, 152. Hereafter cited as Gilliss.

² Gilliss was a fine astronomer, who did much to build up the Naval Observatory in Washington. When Maury resigned at the beginning of the Civil War, Gilliss succeeded him as head of the observatory. For the details of his life see the *Dictionary of American Biography*.

³ I. G. Strain, *Sketches of a Journey to Chile, and the Argentine Provinces in 1849* (New York 1853); Archibald MacRae, *Report of Journeys across the Andes, etc.* (Washington 1855); W. G. Herndon, *Exploration of the Valley of the Amazon* (Washington 1854).

⁴ Mrs. C. B. Merwin, *Three Years in Chile* (New York 1863); for Consul Merwin see N. H. Bishop, *A Thousand Miles' Walk across South America* (Boston 1868), 309.

- ⁵ Hall, *Journal*, II, 154.
- ⁶ Mrs. Merwin, *op. cit.*, 20; Gilliss, 413; Markham, *Cusco*, 7; Hall, *Journal*, II, 153; Squier, *Peru*, 18-19.
- ⁷ R. N. Boyd, *Chili* (London 1881), 191-92.
- ⁸ Baxley, *What I Saw on the West Coast*, 202; Skogman, *Fregatten Eugenies*, 114.
- ⁹ Sutcliffe, *Sixteen Years*, 515; *RCB*, Vol. 3 (1857), 760ff.
- ¹⁰ *RCB*, Vol. 3 (1857), 760.
- ¹¹ *Ibid.*, 772.
- ¹² *Ibid.*, 761.
- ¹³ Baxley, *op. cit.*, 203; Sutcliffe, *Sixteen Years*, 515; Mrs. Merwin, *op. cit.*, 38ff, 48-49.
- ¹⁴ Mrs. Merwin, *op. cit.*, 40-41.
- ¹⁵ *Ibid.*, 39; Ruschenberger, *Three Years*, 91.
- ¹⁶ Gerstäker, *Travels*, 126; Ruschenberger, *op. cit.*, 91.
- ¹⁷ Strain, *op. cit.*, 24-25; Mrs. Merwin, *op. cit.*, 55.
- ¹⁸ Gilliss, 144, 252; Skogman, *op. cit.*, 114; Mrs. Merwin, *op. cit.*, 55.
- ¹⁹ Strain, *Sketches*, 27; Mrs. Merwin, *op. cit.*, 114-15; Tschudi, *Travels*, 30-31.
- ²⁰ Gilliss, 216; Vowell, *Memorias*, 109-10; Bladh, *Resa*, 244.
- ²¹ Hutchinson, *Buenos Ayres*, 57.
- ²² Mrs. Merwin, *op. cit.*, 72.
- ²³ *Ibid.*, 123; Gilliss, 216; Baxley, *op. cit.*, 203.
- ²⁴ Mathison, *Voyage*, 209; Maria Graham, *Journal*, 185.
- ²⁵ Mrs. Merwin, *op. cit.*, 101ff.
- ²⁶ Peabody, *South American Journal*, 169.
- ²⁷ Mrs. Merwin, *op. cit.*, 73, 96; Baxley, *op. cit.*, 220, 225.
- ²⁸ Peabody, *op. cit.*, 161-62, 165.
- ²⁹ *Ibid.*, 164; Mrs. Merwin, *op. cit.*, 81, 84.
- ³⁰ Gilliss, 143; Peabody, *op. cit.*, 163.
- ³¹ *RCB*, Vol. 6 (1860), 3-14.
- ³² Gilliss, 143, 219; *RCB*, Vol. 5 (1859), 637.
- ³³ Gilliss, 143.
- ³⁴ *Ibid.*, 188ff; Mrs. Merwin, *op. cit.*, 88.
- ³⁵ Mrs. Merwin, *op. cit.*, 87; Baxley, *op. cit.*, 248-49.
- ³⁶ Gilliss, 459; Strain, *Sketches*, 55; *RCB*, Vol. 6 (1860), 466.
- ³⁷ Mrs. Merwin, *op. cit.*, 115-16.
- ³⁸ Darwin, *Beagle*, 339.
- ³⁹ Sutcliffe, *Sixteen Years*, 365.
- ⁴⁰ Baxley, *op. cit.*, 203.
- ⁴¹ F. J. Stevenson, *Traveller*, 117.
- ⁴² Gilliss, 235; Strain, *Sketches*, 127; see also *USCR* (1862), 662, and *RCB*, Vol. 7 (1861), 59ff.
- ⁴³ Gilliss, 234.
- ⁴⁴ Byam, *Wanderings*, 163-64; *USCR* (1862), 662, notes that the British were "supreme" in commercial affairs and that they had from twelve to fifteen millions invested in mines and steamships.
- ⁴⁵ Gilliss, 30, 31, 233.
- ⁴⁶ V. M. Berthold, *The Pioneer Steamer California* (Cambridge, Massachusetts, 1932).
- ⁴⁷ Peabody, *South American Journal*, 175; D. J. Hunter, *A Sketch of Chile* (New York 1866), 32-36.
- ⁴⁸ Hunter, *op. cit.*, 35.

- ⁴⁹ *Ibid.*, 43.
⁵⁰ *RCB*, Vol. 6 (1860), 759.
⁵¹ Boyd, *op. cit.*, 135; Baxley, *op. cit.*, 261; Peabody, *op. cit.*, 173.
⁵² Wilkes, *Narrative*, I, 203; Gilliss, 63, 65, 234; G. Wythe, "The Rise of the Factory in Latin America," *Hispanic American Historical Review*, 25 (1945), 305; J. J. Johnson, "Talcahuano and Concepción as seen by the Forty-Niners," *ibid.*, 26 (1946), 251-62.
⁵³ Gilliss, 63, 477.
⁵⁴ Gilliss, 62ff; *RCB*, Vol. 6 (1860), 763.
⁵⁵ Hunter, *op. cit.*, 37.
⁵⁶ *RCB*, Vol. 6 (1860), 771ff.
⁵⁷ Hunter, *op. cit.*, 44.
⁵⁸ Boyd, *Chili*, 31ff; Andrews, *Journey*, II, 199; Baxley, *op. cit.*, 333; Bollaert, *Antiquarian Researches*, 180.
⁵⁹ *RCB*, Vol. 3 (1857), 669; Vol. 6 (1860), 835.
⁶⁰ Wythe, *op. cit.*, 302.
⁶¹ *RCB*, Vol. 7 (1861), 136.
⁶² Baxley, *op. cit.*, 186.
⁶³ Gilliss, 269-70.
⁶⁴ Mrs. Merwin, *op. cit.*, 129-30.
⁶⁵ Gilliss, 142.
⁶⁶ Mrs. Merwin, *op. cit.*, 72.
⁶⁷ *RCB*, Vol. 6 (1860), 840-41.
⁶⁸ Gilliss, 344.
⁶⁹ *Ibid.*, 212.
⁷⁰ *Ibid.*, 308.
⁷¹ Mrs. Merwin, *op. cit.*, 125.
⁷² Gilliss, 118.
⁷³ Hunter, *op. cit.*, 23.
⁷⁴ Miers, *Travels*, II, 162-63.
⁷⁵ F. J. Stevenson, *Traveller*, 139.

Chapter VIII

- ¹ T. J. Hutchinson, *Two Years in Peru* (2 vols., London 1873), I, 304.
² *BCR*, 114.
³ *Ibid.*, 195.
⁴ *Ibid.*, 127; Miller, *Memoirs*, II, 221.
⁵ Cleveland, *Voyages*, 204ff.
⁶ Brand, *Journal*, 178; Proctor, *Narrative*, 114; Mathison, *Narrative*, 302.
⁷ *BCR*, 108; Proctor, *op. cit.*, 236.
⁸ Stevenson, *Historical and Descriptive Narrative*, I, 349-50.
⁹ *BCR*, 118ff.
¹⁰ *Ibid.*, 138.
¹¹ *Ibid.*, 136.
¹² *Ibid.*, 165.
¹³ *Ibid.*, 177; Stevenson, *op. cit.*, I, 403.
¹⁴ Proctor, *op. cit.*, 291-92.
¹⁵ *BCR*, 130.
¹⁶ *RCB*, Vol. 1 (1855), 429ff.
¹⁷ *BCR*, 130.
¹⁸ Wilkes, *Narrative*, I, 303-4.

- ¹⁹ *RCB*, Vol. 1 (1855), 429ff.
- ²⁰ Tschudi, *Travels in Peru*, 47.
- ²¹ Proctor, *op. cit.*, 112.
- ²² Wilkes, *op. cit.*, I, 233-34.
- ²³ Hutchinson, *op. cit.*, I, 188, 197-200; *USCR* (1865), 591.
- ²⁴ Squier, *Peru*, 30; *USCR* (1862), 691-92.
- ²⁵ Wilkes, *op. cit.*, I, 236; Stevenson, *op. cit.*, I, 139.
- ²⁶ Tschudi, *op. cit.*, 138; Gilliss, *Naval Astronomical Expedition*, 428; *USCR* (1866), 536.
- ²⁷ Byam, *Wanderings*, 178.
- ²⁸ Merwin, *Three Years in Chili*, 28; Hutchinson, *op. cit.*, I, 181, 229; Squier, *Peru*, 31.
- ²⁹ Proctor, *op. cit.*, 119.
- ³⁰ Brand, *Journal*, 178.
- ³¹ Darwin, *Beagle*, 353.
- ³² Juan and Ulloa, *Voyage*, II, 55.
- ³³ Stevenson, *op. cit.*, I, 214-15; Juan and Ulloa, *op. cit.*, II, 34; Squier, *Peru*, 44ff; Tschudi, *op. cit.*, 61-62.
- ³⁴ Stevenson, see note 33.
- ³⁵ Squier, *op. cit.*, 45.
- ³⁶ Juan and Ulloa, *op. cit.*, II, 80.
- ³⁷ Brand, *op. cit.*, 187-88.
- ³⁸ *Ibid.*, 184-85.
- ³⁹ Juan and Ulloa, *op. cit.*, II, 62ff; Tschudi, *op. cit.*, 95.
- ⁴⁰ Tschudi, *op. cit.*, 102; S. S. Hill, *Travels in Peru and Mexico* (2 vols. London 1860), II, 81.
- ⁴¹ Caldcleugh, *Travels*, II, 70.
- ⁴² Juan and Ulloa, *op. cit.*, II, 111.
- ⁴³ Brand, *op. cit.*, 183ff; Hall, *Journal*, I, 109; Baxley, *What I Saw*, 112.
- ⁴⁴ Proctor, *op. cit.*, 223.
- ⁴⁵ Colton, *Deck and Port*, 238-39.
- ⁴⁶ Hall, *op. cit.*, I, 92.
- ⁴⁷ Proctor, *op. cit.*, 229; A. J. Duffield, *Peru in the Guano Age* (London 1877), 23.
- ⁴⁸ Proctor, *op. cit.*, 247; Tschudi, *op. cit.*, 84-85; J. Skinner, *Present State of Peru* (London 1805), 211-12.
- ⁴⁹ Tschudi, *op. cit.*, 84-85.
- ⁵⁰ *Idem.*
- ⁵¹ Hutchinson, *Peru*, I, 324.
- ⁵² Mathison, *Narrative*, 304.
- ⁵³ Hall, *op. cit.*, I, 86-87.
- ⁵⁴ Stevenson, *op. cit.*, I, 311.
- ⁵⁵ Hutchinson, *op. cit.*, I, 230; Tschudi, *op. cit.*, 203; Hall, *Journal*, I, 222; Mathison, *op. cit.*, 278, says Chorillos is "the Brighton of Peru."
- ⁵⁶ Hutchinson, *op. cit.*, I, 231.
- ⁵⁷ Proctor, *op. cit.*, 231.
- ⁵⁸ Skinner, *op. cit.*, 216.
- ⁵⁹ Stevenson, *op. cit.*, I, 264 (quoting Jovellanos).
- ⁶⁰ Proctor, *op. cit.*, 258.
- ⁶¹ Colton, *Deck and Port*, 246.
- ⁶² Miller, *Memoirs*, II, 10.
- ⁶³ Proctor, *op. cit.*, 299.

⁶⁴ *Ibid.*, 116; Tschudi, *op. cit.*, 121.

⁶⁵ Proctor, *op. cit.*, 324.

⁶⁶ Duffield, *Guano Age*, 50; Baxley, *op. cit.*, 102.

⁶⁷ Hutchinson, *op. cit.*, I, 239; Baxley, *op. cit.*, 95; *USCR* (1866), 536.

⁶⁸ Hutchinson, *op. cit.*, I, 332.

⁶⁹ Wilkes, *op. cit.*, I, 243.

⁷⁰ Hutchinson, *op. cit.*, I, 340-41.

Chapter IX

¹ Duffield, *Guano Age*, 93.

² For Paita see Squier, *Peru*, 2; Merwin, *Three Years in Chili*, 25; Peabody, *South American Journal*, 184-85; Hall, *Journal*, II, 76ff; *USCR* (1858), 430; Terry, *Travels*, 54; also Juan and Ulloa, Anson, etc.

³ Juan and Ulloa, *Voyage*, II, 197-98.

⁴ Hutchinson, *Peru*, I, 103; H. L. Maw, *Journal of a Passage from the Pacific to the Atlantic* (London 1829), 6.

⁵ F. J. Stevenson, *Traveller in the Sixties*, 226.

⁶ Peabody, *op. cit.*, 187.

⁷ Maw, *op. cit.*, 17; Proctor, *Narrative*, 194; *BCR*, 178; Squier, *Peru*, 109; Gilliss, *Naval Astronomical Expedition*, 426; H. A. Weddell, *Voyage dans le nord de la Bolivie* (Paris 1853), 49.

⁸ Proctor, *op. cit.*, 191; *BCR*, 178; Juan and Ulloa, *op. cit.*, II, 19-20.

⁹ Squier, *op. cit.*, 134.

¹⁰ Ruiz, *Travels*, 103.

¹¹ Hutchinson, *op. cit.*, I, 132; *BCR*, 177; C. R. Markham, *Cuzco* (London 1856), 25-27; W. L. Herndon, *Exploration of the Valley of the Amazon* (Washington 1854), 83.

¹² *USCR* (1862), 692; (1864), 762-63.

¹³ Juan and Ulloa, *Voyage*, II, 106; Hutchinson, *op. cit.*, I, 63.

¹⁴ Merwin, *op. cit.*, 29.

¹⁵ *USCR* (1862), 635; (1864), 760-61.

¹⁶ Markham, *Cuzco*, 35, 45.

¹⁷ Ruiz, *Travels*, 19.

¹⁸ Peabody, *op. cit.*, 179; Baxley, *What I Saw*, 167; Bollaert, *Antiquarian Researches*, 149.

¹⁹ *RCB*, Vol. 1 (1855), 425ff; Vol. 3 (1857), 239ff.; Herndon, *op. cit.*, 208.

²⁰ Peabody, *South American Journal*, 179.

²¹ Duffield, *Guano Age*, 77-78.

²² *Ibid.*, 43; Baxley, *op. cit.*, 102; *USCR* (1863), 631.

²³ Squier, *Peru*, 114-15.

²⁴ Duffield, *op. cit.*, 51.

²⁵ Baxley, *op. cit.*, 175.

²⁶ Bollaert, *op. cit.*, 254; Hutchinson, *Peru*, I, 80.

²⁷ Squier, *op. cit.*, 222.

²⁸ Hutchinson, *op. cit.*, II, 41.

²⁹ See Frezier, *Voyage*, 120. Also described by Miers, Merwin, Hall, Haigh, etc.

³⁰ F. J. Stevenson, *op. cit.*, 295.

³¹ Peabody, *op. cit.*, 176; Lardner Gibbon, *Exploration of the Valley of the Amazon* (Washington 1854), 97. Gibbon wrote Vol. II of Herndon, note 11.

³² F. J. Stevenson, *op. cit.*, 178.

- ³² *Ibid.*, 182.
³⁴ Squier, *op. cit.*, 232.
³⁵ *Ibid.*, 235.
³⁶ F. J. Stevenson, *op. cit.*, 193.
³⁷ *Ibid.*, 194.
³⁸ Hutchinson, *op. cit.*, I, 61.
³⁹ Bollaert, *op. cit.*, 156; Gilliss, *op. cit.*, 445.
⁴⁰ Bollaert, *op. cit.*, 244, 267.
⁴¹ Herndon, *op. cit.*, 132.
⁴² W. Smyth and F. Lowe, *Narrative of a Journey from Lima to Para* (London 1836), 36.
⁴³ E. P. Mathews, *Up the Amazon and Madeira Rivers* (London 1879), 315.
⁴⁴ Gibbon, *op. cit.*, 36.
⁴⁵ *Ibid.*, 30; Smyth and Lowe, *op. cit.*, 66.
⁴⁶ Wilkes, *op. cit.*, I, 276.
⁴⁷ Herndon, *op. cit.*, 94; Squier, *Peru*, 260.
⁴⁸ Gibbon, *op. cit.*, 28.
⁴⁹ Wilkes, *op. cit.*, I, 276.
⁵⁰ Hutchinson, *Peru*, I, 76.
⁵¹ Wilkes, *op. cit.*, I, 275.
⁵² Gibbon, *op. cit.*, 20.
⁵³ Herndon, *op. cit.*, 97; Smyth and Lowe, *op. cit.*, 38-41.
⁵⁴ On this see Herndon, 51, 101; Smyth and Lowe, 47ff; Proctor, 323; Wilkes, I, 268-70; Miers, *Travels*, II, 436ff; W. B. Stevenson, I, 280; Caldcleugh, *Travels*, II, 75; Mathison, *Narrative*, 304; Hall, *Journal*, II, 56ff.
⁵⁵ Herndon, *op. cit.*, 116.
⁵⁶ *Ibid.*, 118.
⁵⁷ *Ibid.*, 119.
⁵⁸ *Ibid.*, 130.
⁵⁹ *Ibid.*, 137.
⁶⁰ *Idem.*
⁶¹ *Ibid.*, 141.
⁶² *Ibid.*, 72.
⁶³ *Ibid.*, 67.
⁶⁴ Gibbon, *op. cit.*, 1-8.
⁶⁵ *Ibid.*, 12-15.
⁶⁶ *Ibid.*, 21-22, 204.
⁶⁷ Herndon, *op. cit.*, 159.
⁶⁸ John L. Stephens, *Incidents of Travel in Central America and Yucatan* (2 vols. New York 1841), I, 341-42.
⁶⁹ Gibbon, *op. cit.*, 41-55; Markham, *Cuzco, passim*; Squier, *Peru*, 426ff.
⁷⁰ C. R. Markham, *Travels in Peru and India* (London 1862), 94.
⁷¹ *Ibid.*, 99; Mulhall, *English in South America*, 258-62.
⁷² Gibbon, *op. cit.*, 96.
⁷³ Squier, *op. cit.*, 329; Markham, *Peru*, 103.
⁷⁴ Squier, *op. cit.*, 357.
⁷⁵ Gibbon, *op. cit.*, 101.
⁷⁶ Squier, *op. cit.*, 10-11.

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- ¹ Gibbon, *Exploration*, 130.
² Mathews, *Up the Amazon*, 37.

- ³ Gibbon, *op. cit.*, 105.
- ⁴ Squier, *Peru*, 270, 307.
- ⁵ *Ibid.*, 286.
- ⁶ *Ibid.*, 302-3.
- ⁷ Temple, *Travels*, II, 61-63.
- ⁸ Gibbon, *op. cit.*, 107.
- ⁹ *Ibid.*, 126.
- ¹⁰ Miller, *Memoirs*, II, 240.
- ¹¹ Andrews, *Journey*, II, 85.
- ¹² Miller, *Memoirs*, II, 255; Temple, *Travels*, I, 293.
- ¹³ Temple, *op. cit.*, II, 285; Weddell, *Voyage*, 161.
- ¹⁴ *Ibid.*, I, 291; Miller, *op. cit.*, II, 244.
- ¹⁵ Temple, *op. cit.*, I, 291.
- ¹⁶ Squier, *Peru*, 23.
- ¹⁷ Temple, *op. cit.*, II, 47.
- ¹⁸ Andrews, *Journey*, II, 110.
- ¹⁹ Temple, *op. cit.*, I, 407, 421.
- ²⁰ Mathews, *op. cit.*, 261.
- ²¹ Gibbon, *op. cit.*, 145.
- ²² *Ibid.*, 146.
- ²³ *Ibid.*, 133.
- ²⁴ Mathews, *op. cit.*, 226.
- ²⁵ Gibbon, *op. cit.*, 151.
- ²⁶ Weddell, *op. cit.*, 180.
- ²⁷ *Ibid.*, 162.
- ²⁸ Gibbon, *op. cit.*, 114.
- ²⁹ *BCR*, 217.
- ³⁰ *RCB*, Vol. 2 (1856), 286.
- ³¹ Gibbon, *op. cit.*, 129, 229, 334.
- ³² *Ibid.*, 128.
- ³³ *RCB*, Vol. 2 (1856), 387.
- ³⁴ *Ibid.*, Vol. 2 (1856), 389.
- ³⁵ Gibbon, *op. cit.*, 46; Herndon, *Exploration*, 84.
- ³⁶ Weddell, *Voyage, passim*; Markham, *Travels in Peru*, 38-43.
- ³⁷ Markham, *op. cit.*, 66; *USCR* (1864), 822.
- ³⁸ Gibbon, *op. cit.*, 111.
- ³⁹ *Ibid.*, 199.
- ⁴⁰ *Ibid.*, 205.

Chapter XI

- ¹ D. P. Kidder, *Sketches of a Residence and Travels in Brazil* (2 vols. Philadelphia 1845), I, 19.
- ² *Ibid.*, I, 22.
- ³ George Gardner, *Travels in the Interior of Brazil* (London 1846), 5; Thomas Ewbank, *Life in Brazil* (New York 1856), 65, 88; Robertson, *Letters on Paraguay*, I, 140.
- ⁴ James Henderson, *History of the Brazil* (London 1821), 10.
- ⁵ Kidder, *op. cit.*, I, 161.
- ⁶ Ewbank, *op. cit.*, 63, 90; John Luccock, *Notes on Rio de Janeiro* (London 1820), 98; Robertson, *op. cit.*, I, 144; Brackenridge, *Voyage to South America*,

I, 121; Gardner, *op. cit.*, 8; Maximilian of Nieuwied, *Travels in Brazil* (London 1825), 9.

⁷ Robertson, *Letters*, I, 142; Webster, *Narrative*, I, 42; Ewbank, *op. cit.*, 115-17.

⁸ Professor and Mrs. Louis Agassiz, *A Journey in Brazil* (Boston 1867), 66.

⁹ Kidder, *op. cit.*, I, 69; Brand, *Journal*, 12; Robertson, *op. cit.*, I, 168.

¹⁰ Wilkes, *Narrative of the United States Exploring Expedition*, I, 53.

¹¹ R. Walsh, *Notices of Brazil*, I, 142-43.

¹² Caldcleugh, *Travels*, I, 46.

¹³ Stewart, *Brazil and La Plata*, 147-49; Gardner, *op. cit.*, 8; J. B. von Spix and C. F. P. von Martius, *Travels in Brazil, 1817-1820* (2 vols. London 1824), I, 183.

¹⁴ Kidder, *op. cit.*, I, 106; Mulhall, *English in South America*, 525; Walsh, *op. cit.*, I, 461.

¹⁵ Colton, *Deck and Port*, 46.

¹⁶ Ewbank, *op. cit.*, 60.

¹⁷ Robertson, *Letters*, I, 143; Caldcleugh, *Travels*, I, 11; Kidder, *op. cit.*, I, 68; Ewbank, *Life in Brazil*, 87.

¹⁸ Henderson, *op. cit.*, 12ff; Brackenridge, *op. cit.*, I, 119; Luccock, *op. cit.*, 39.

¹⁹ Robertson, *op. cit.*, I, 172-73.

²⁰ Webster, *Narrative*, I, 46; Spix and Martius, *op. cit.*, I, 130.

²¹ Kidder, *op. cit.*, I, 95.

²² Colton, *Deck and Port*, 122.

²³ Luccock, *op. cit.*, 189.

²⁴ Ewbank, *Life in Brazil*, 88.

²⁵ Colton, *op. cit.*, 123.

²⁶ Caldcleugh, *Travels*, I, 62ff; Kidder, *op. cit.*, I, 70-71; Luccock, *op. cit.*, 73; see also Herbert Heaton, "A Merchant Adventurer in Brazil," *Journal of Economic History*, Vol. VI (1946), 1-23.

²⁷ Walsh, *Notices*, I, 485-86; Kidder, *op. cit.*, I, 71-72.

²⁸ Ewbank, *op. cit.*, 171, 430; Agassiz, *Journey*, 53ff; Kidder, *op. cit.*, I, 129ff.

²⁹ Mathison, *Narrative*, 10; Agassiz, *op. cit.*, 502; Ewbank, *op. cit.*, 120-21; Walsh, *Notices*, I, 421.

³⁰ Walsh, *op. cit.*, I, 457; Mathison, *Narrative*, 9; Ewbank, *op. cit.*, 435; Agassiz, *Journey*, 501; Caldcleugh, *op. cit.*, I, 67.

³¹ Brand, *Journal*, 303; Luccock, *op. cit.*, 89.

³² Luccock, *op. cit.*, 89; see also Gerstäker, *Travels*, 22-23.

³³ Maximilian, *op. cit.*, 10; Caldcleugh, *Travels*, I, 62; Henderson, *op. cit.*, 89; Spix and Martius, *op. cit.*, I, 156; Mathison, *Narrative*, 10; Brackenridge, *Voyage*, I, 145.

³⁴ Henderson, *op. cit.*, 59.

³⁵ Ruschenberger, *Three Years*, 42.

³⁶ Prince Adalbert of Prussia, *Travels of His Royal Highness Prince Adalbert of Prussia* (2 vols. London 1849), I, 292; Caldcleugh, *Travels*, I, 62.

³⁷ Spix and Martius, *op. cit.*, I, 157; Caldcleugh, *op. cit.*, I, 62.

³⁸ Andrews, *Journey*, I, 245.

³⁹ Walsh, *Notices*, I, 473; Ewbank, *op. cit.*, 196.

⁴⁰ Robertson, *Letters*, I, 168; Caldcleugh, *Travels*, I, 85; Ewbank, *op. cit.*, 111-12.

⁴¹ Robertson, *op. cit.*, I, 144, 165.

⁴² Caldcleugh, *op. cit.*, I, 64.

- ⁴³ Luccock, *op. cit.*, 71.
⁴⁴ Adalbert, *op. cit.*, II, 270.
⁴⁵ Walsh, *Notices*, II, 380; Kidder, *op. cit.*, I, 147ff; Ewbank, *op. cit.*, 71, 97.
⁴⁶ Kidder, *op. cit.*, I, 146.
⁴⁷ Ewbank, *Life in Brazil*, 318.
⁴⁸ *Ibid.*, 250-51.
⁴⁹ *Ibid.*, 391.
⁵⁰ Kidder, *op. cit.*, I, 151.
⁵¹ Walsh, *Notices*, I, 355.
⁵² Ewbank, *op. cit.*, 67; Kidder, *op. cit.*, I, 160, 175.
⁵³ Kidder, *op. cit.*, I, 174.
⁵⁴ *Ibid.*, 176-77.
⁵⁵ Henderson, *op. cit.*, 76; Kidder, *op. cit.*, 114-15.
⁵⁶ Caldcleugh, *Travels*, 70; Mathison, *Voyage*, 9; Gardner, *op. cit.*, 435.
⁵⁷ R. F. Burton, *The Highlands of the Brazil* (2 vols. London 1869), I, 118; Webster, *Narrative*, I, 45.
⁵⁸ Caldcleugh, *Travels*, I, 70; Ruschenberger, *Three Years*, 65; Walsh, *Notices*, I, 437; Kidder, *op. cit.*, I, 118; Ewbank, *op. cit.*, 435.
⁵⁹ Henderson, *op. cit.*, 52; John Mawe, *Voyages dans l'intérieur du Brésil* (2 vols. Paris 1816), I, 182.
⁶⁰ Walsh, *op. cit.*, I, 389.
⁶¹ Spix and Martius, *op. cit.*, I, 152.
⁶² Kidder, *op. cit.*, I, 110.
⁶³ *Ibid.*, I, 119-20; Agassiz, *op. cit.*, 502.
⁶⁴ Walsh, *op. cit.*, I, 183, II, 459.
⁶⁵ Adalbert, *op. cit.*, II, 272, 280; J. C. Fletcher and D. P. Kidder, *Brazil and the Brazilians* (Philadelphia 1857), 239, 243.
⁶⁶ Kidder, *op. cit.*, I, 129; Ewbank, *op. cit.*, 435.
⁶⁷ Agassiz, *op. cit.*, 499.
⁶⁸ *Ibid.*, 479.
⁶⁹ *Ibid.*, 480.
⁷⁰ Walsh, *Notices*, I, 141.

Chapter XII

- ¹ Mansfield, *Paraguay*, 72.
² Mathison, *Voyage*, 113; Spix and Martius, *Travels*, I, 222, 275; d'Orbigny, *Voyage*, 195.
³ Maximilian of Nieuwied, *Travels*, 110.
⁴ Kidder, *Sketches*, I, 250-52; John Codman, *Ten Months in Brazil* (Boston 1867), 108.
⁵ H. Koster, *Travels in Brazil* (London 1816), 29; Walsh, *Notices*, II, 64.
⁶ Mathison, *op. cit.*, 17, 35; Henderson, *History of the Brazil*, 5.
⁷ Adalbert, *Travels*, II, 83; Kidder, *op. cit.*, I, 191.
⁸ Agassiz, *Journey*, 92.
⁹ Mathison, *Voyage*, 122; Maximilian, *op. cit.*, 23, 53; Koster, *Travels*, 49.
¹⁰ Ewbank, *Life in Brazil*, 306-7, 369.
¹¹ Kidder, *op. cit.*, I, 165.
¹² Stewart, *Brazil and La Plata*, 281ff; William Scully, *Brazil; its Provinces and Chief Cities* (London 1866), 50, 162.
¹³ Ewbank, *op. cit.*, 308-9.
¹⁴ Scully, *op. cit.*, 332; Agassiz, *Journey*, 67-68.

- ¹⁵ Burton, *Highlands of the Brazil*, I, 22.
- ¹⁶ Mathison, *Voyage*, 15; Hadfield, *Brazil*, 164; Codman, *op. cit.*, 113; Scully, *Brazil*, 159.
- ¹⁷ Stewart, *op. cit.*, 417; Mulhall, *English in South America*, 495.
- ¹⁸ Hadfield, *Brazil*, 164.
- ¹⁹ Scully, *op. cit.*, 333.
- ²⁰ Burton, *Highlands*, I, 35.
- ²¹ *Ibid.*, I, 35; Codman, *Ten Months*, 119; Agassiz, *Journey*, 66.
- ²² Codman, *op. cit.*, 119.
- ²³ Minas was visited by Mawe, St. Hilaire, Gardner, Walsh, Luccock, Burton, and others.
- ²⁴ Burton, *Highlands*, I, 398.
- ²⁵ Gardner, *Travels*, 139.
- ²⁶ Burton, *op. cit.*, I, 397.
- ²⁷ Spix and Martius, *Travels*, II, 213.
- ²⁸ Burton, *op. cit.*, I, 227.
- ²⁹ *Ibid.*, I, 229.
- ³⁰ Robert Dundas, *Sketches of Brazil* (London 1852), 201-3.
- ³¹ Kidder, *op. cit.*, II, 22; see also Gardner, *Travels*, 75; d'Orbigny, *op. cit.*, 150.
- ³² Kidder, *op. cit.*, II, 24-25.
- ³³ Thomas Lindley, *Narrative of a Voyage to Brazil* (London 1805), 35-36.
- ³⁴ USCR (1866), 529; V. L. Baril, *L'Empire du Brésil* (Paris 1862), 388; Scully, *Brazil*, 346; Maximilian I, *Recollections*, III, 177.
- ³⁵ Burton, *Highlands*, II, 378.
- ³⁶ RCB, 12 (1866), 384-85; Gardner, *Travels*, 137.
- ³⁷ Mansfield, *Paraguay*, 29.
- ³⁸ Kidder, *op. cit.*, II, 119; Hadfield, *op. cit.*, 103; Waterton, *Wanderings in South America*, 70-71.
- ³⁹ Kidder, *op. cit.*, II, 120.
- ⁴⁰ USCR (1859), 432.
- ⁴¹ Koster, *Travels*, 336ff.
- ⁴² Ewbank, *Life in Brazil*, 366; Maximilian I, *Recollections*, III, 244.
- ⁴³ *Ibid.*, II, 238-39.
- ⁴⁴ *Ibid.*, III, 283.
- ⁴⁵ Burton, *Highlands*, II, 189.
- ⁴⁶ Koster, *op. cit.*, 365ff.
- ⁴⁷ USCR (1866), 522; Mulhall, *English in South America*, 345; Hutchinson, *Parana*, 233; on the earlier period see also Horace Say, *Histoire des relations commerciales entre la France et le Brésil* (Paris 1839).
- ⁴⁸ Webster, *Narrative*, II, 33.
- ⁴⁹ *Ibid.*, II, 40-41; Kidder, *op. cit.*, II, 239.
- ⁵⁰ USCR (1863), 631; Mulhall, *English in South America*, 385.
- ⁵¹ Kidder, *op. cit.*, II, 43; Gardner, *Travels*, 193; Koster, *op. cit.*, 399.
- ⁵² Koster, *op. cit.*, 87.
- ⁵³ Hadfield, *Brazil*, 93; Scully, *Brazil*, 228, *passim*.
- ⁵⁴ Adalbert, *Travels*, 112; Scully, *op. cit.*, 123; Kidder, *op. cit.*, II, 9-10.
- ⁵⁵ Scully, *Brazil*, 199; Hadfield, *op. cit.*, 109.
- ⁵⁶ Scully, *op. cit.*, 148.
- ⁵⁷ Agassiz, *Journey*, 528.
- ⁵⁸ RCB, Vol. 3 (1857), 289; Vol. 6 (1860), 310; Vol. 12 (1866), 310; Scully, *Brazil*, 307; Codman, *Ten Months*, 63ff.

- ⁵⁹ Scully, *op. cit.*, 307-9.
⁶⁰ Burton, *Highlands*, II, 246; Codman, *op. cit.*, 63.
⁶¹ Codman, *op. cit.*, 64.
⁶² *Ibid.*, 48, 56, 68.
⁶³ Mawe, *Voyage*, II, 102; Kidder, *op. cit.*, I, 263; *RCB*, Vol. I (1855), 309.
⁶⁴ *RCB*, Vol. 3 (1857), 363; Vol. 12 (1866), 309.
⁶⁵ Scully, *Brazil*, 311; Codman, *op. cit.*, 59.
⁶⁶ Mawe, *Voyage*, I, 106; Spix and Martius, *op. cit.*, II, 102.
⁶⁷ Kidder, *op. cit.*, I, 211.
⁶⁸ Walsh, *Notices*, II, 6.
⁶⁹ Kidder, *op. cit.*, I, 218-19.
⁷⁰ *Ibid.*, I, 229-31; Spix and Martius, *op. cit.*, II, 2ff.
⁷¹ Spix and Martius, *op. cit.*, II, 12; Gardner, *Travels*, 436.
⁷² Spix and Martius, *op. cit.*, II, 12.
⁷³ Codman, *Ten Months*, 70.
⁷⁴ Spix and Martius, *op. cit.*, II, 48; d'Orbigny, *Voyage*, 202; see also R. C. Simonsen, *Historia economica do Brasil* (2 vols. São Paulo 1937), II, 325.
⁷⁵ Spix and Martius, *op. cit.*, II, 49; Simonsen, *op. cit.*, II, 326.
⁷⁶ Kidder, *op. cit.*, I, 280-81.
⁷⁷ *Ibid.*, I, 305, II, 144.
⁷⁸ See Mrs. Mulhall, *Between the Amazon and the Andes*, and M. G. Mulhall, *Rio Grande do Sul* (London 1873).
⁷⁹ Codman, *Ten Months*, 134-35. Hutchinson, *Parana*, 387, remarks on the ubiquity of Italian organ grinders in the Plate area.
⁸⁰ *USCR* (1863), 616; (1866), 309; *RCB*, Vol. 12 (1866), 309.
⁸¹ Scully, *Brazil*, 312.
⁸² *Ibid.*, 313.
⁸³ Burton, *Highlands*, I, 9.
⁸⁴ B. S. Dunn, *Brazil, the Home for Southerners* (New York 1866), 51.
⁸⁵ *Ibid.*, 188-89.
⁸⁶ *Ibid.*, 199.
⁸⁷ *Ibid.*, 237-39.
⁸⁸ Richard Spruce, *Notes of a Botanist on the Amazon and the Andes* (2 vols. London 1908), I, 123.
⁸⁹ Gardner, *Travels*, 136.
⁹⁰ Luccock, *Notes on Rio de Janeiro*, 189.
⁹¹ Koster, *Travels*, 29.
⁹² Walsh, *Notices*, II, 154.
⁹³ Maximilian I, *Recollections*, III, 118.
⁹⁴ Burton, *Highlands*, I, 1.
⁹⁵ Webster, *Narrative*, II, 62.
⁹⁶ Burton, *op. cit.*, I, 83.
⁹⁷ Codman, *Ten Months*, 71; Peabody, *South American Journal*, 47, remarked that "for some reason American dentists seem to be successful in every country."
⁹⁸ Burton, *op. cit.*, I, 115.

Chapter XIII

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² *Ibid.*, I, 215.

³ H. W. Bates, *A Naturalist on the Amazons* (Everyman's Library, no. 446), 2.

⁴ W. H. Edwards, *A Voyage up the River Amazon* (London 1847), 11-12.

- ⁵ Bates, *op. cit.*, 4; Kidder, *Sketches*, II, 265; J. E. Warren, *Para* (New York 1851), 9-10.
- ⁶ Bates, *op. cit.*, 17.
- ⁷ *Ibid.*, 3.
- ⁸ *Ibid.*, 18; Herndon, *Exploration*, 335.
- ⁹ Bates, *op. cit.*, 181-83; Spruce, *Notes*, I, 116.
- ¹⁰ Edwards, *op. cit.*, 24.
- ¹¹ C. B. Brown and W. Lidstone, *Fifteen Thousand Miles on the Amazon and its Tributaries* (London 1878), 498.
- ¹² Wallace, *Travels on the Amazon*, 12.
- ¹³ *Idem.*
- ¹⁴ Ewbank, *Life in Brazil*, 379.
- ¹⁵ *Ibid.*, 380; Maximilian of Nieuwied, *Travels*, 28.
- ¹⁶ Maw, *Journal*, 380; Spruce, *Notes*, I, 386; Smyth and Lowe, *Narrative*, 302.
- ¹⁷ Edwards, *op. cit.*, 42; Spruce, *Notes*, I, 7.
- ¹⁸ Maw, *Journal*, 386.
- ¹⁹ Edwards, *op. cit.*, 15; Robert Ave-Lallemont, *Reise durch Nord-Bresilien im Jahre 1859* (2 vols. Leipsic 1860), II, 29.
- ²⁰ James Orton, *The Andes and the Amazon* (New York 1870), 257.
- ²¹ F. J. Stevenson, *A Traveller of the Sixties*, 3.
- ²² Kidder, *Sketches*, II, 281ff; Webster, *Narrative*, I, 86; Scully, *Brazil*, 282-83.
- ²³ Webster, *op. cit.*, I, 80; Spruce, *Notes*, I, 54; Wallace, *Travels*, 14-15, 35.
- ²⁴ Wallace, *op. cit.*, 262-63; see also Herndon, *Exploration*, 251.
- ²⁵ Bates, *op. cit.*, 404.
- ²⁶ Brown and Lidstone, *op. cit.*, 6.
- ²⁷ Kidder, *Sketches*, II, 279; Bates, *op. cit.*, 32-38; Edwards, *op. cit.*, 12; Wallace, *Travels*, 19, 42.
- ²⁸ Warren, *Para*, 213.
- ²⁹ Wallace, *op. cit.*, 19.
- ³⁰ Bates, *op. cit.*, 116; Kidder, *Sketches*, II, 269.
- ³¹ Bates, *op. cit.*, 39-40.
- ³² *Ibid.*, 235.
- ³³ Herndon, *Exploration*, 271.
- ³⁴ Bates, *op. cit.*, 117, 375; Spruce, *Notes*, II, 40; Orton, *op. cit.*, 234.
- ³⁵ *USCR* (1870), 63.
- ³⁶ Brown and Lidstone, *op. cit.*, 12.
- ³⁷ J. Melby, "Rubber River: an Account of the Rise and Collapse of the Amazon Boom," *Hispanic American Historical Review*, 22 (1942), 452-69.
- ³⁸ Bates, *op. cit.*, 67, 83, 86, 156; Edwards, *op. cit.*, 119; Agassiz, *Journey*, 273.
- ³⁹ Bates, *op. cit.*, 68, 78, 122; Wallace, *Travels*, 99.
- ⁴⁰ Herndon, *Exploration*, 326-27; Kidder, *Sketches*, II, 282-84; Bates, *op. cit.*, 78; Edwards, *op. cit.*, 179-80.
- ⁴¹ Scully, *Brazil*, 36-37.
- ⁴² *USCR* (1858), 423.
- ⁴³ Wallace, *Travels*, 43.
- ⁴⁴ Spruce, *Notes*, I, 61.
- ⁴⁵ Herndon, *Exploration*, 326; Edwards, *op. cit.*, 156.
- ⁴⁶ Herndon, *op. cit.*, 290.
- ⁴⁷ Bates, *op. cit.*, 184.
- ⁴⁸ Spruce, *Notes*, I, 54, 63-64; Wallace, *Travels*, 95-96; Maw, *Journal*, 344-45; Smyth and Lowe, *op. cit.*, 299; Herndon, *Exploration*, 301.

- ⁴⁹ Bates, *op. cit.*, 187.
- ⁵⁰ Agassiz, *Journey*, 359.
- ⁵¹ Bates, *op. cit.*, 161; Orton, *op. cit.*, 251; Baril, *L'Empire du Brésil*, 347; F. Keller, *The Amazon and Madeira Rivers* (London 1874), 32.
- ⁵² Bates, *op. cit.*, 162.
- ⁵³ *Ibid.*, 48.
- ⁵⁴ Brown and Lidstone, *op. cit.*, 300-1.
- ⁵⁵ Smyth and Lowe, *op. cit.*, 293; Herndon, *Exploration*, 251ff, 266.
- ⁵⁶ Herndon, *op. cit.*, 269.
- ⁵⁷ Wallace, *Travels*, 260.
- ⁵⁸ Bates, *op. cit.*, 177-78.
- ⁵⁹ Orton, *op. cit.*, 243-44.
- ⁶⁰ Stevenson, *Traveller*, 31.
- ⁶¹ Agassiz, *Journey*, 190.
- ⁶² Brown and Lidstone, *op. cit.*, 391; Orton, *op. cit.*, 245.
- ⁶³ Brown and Lidstone, *op. cit.*, 396.
- ⁶⁴ *Ibid.*, 397.
- ⁶⁵ Smyth and Lowe, *op. cit.*, 294; Bates, *op. cit.*, 175, 225.
- ⁶⁶ Herndon, *Exploration*, 251.
- ⁶⁷ *Ibid.*, 271; Orton, *op. cit.*, 227.
- ⁶⁸ Spruce, *Notes*, I, 196-98; Herndon, *op. cit.*, 286-87; Edwards, *op. cit.*, 81-88, 145-46.
- ⁶⁹ Wallace, *Travels*, 119-20.
- ⁷⁰ *Ibid.*, 120.
- ⁷¹ Herndon, *Exploration*, 270; Wallace, *op. cit.*, 120.
- ⁷² Spruce, *Notes*, I, 243.
- ⁷³ Maw, *op. cit.*, 311-12.
- ⁷⁴ Agassiz, *Journey*, 212-13.
- ⁷⁵ Herndon, *op. cit.*, 254.
- ⁷⁶ *Idem.*
- ⁷⁷ Bates, *op. cit.*, 311.
- ⁷⁸ *Ibid.*, 324.
- ⁷⁹ *Ibid.*, 286.
- ⁸⁰ Agassiz, *Journey*, 208.
- ⁸¹ Herndon, *Exploration*, 143.
- ⁸² Stevenson, *Traveller*, 54.
- ⁸³ Bates, *op. cit.*, 273.
- ⁸⁴ *Ibid.*, 329; Waterton, *Wanderings in South America*, 176.
- ⁸⁵ Brown and Lidstone, *op. cit.*, 457.
- ⁸⁶ Bates, *op. cit.*, 54, 237; Smyth and Lowe, *op. cit.*, 304.
- ⁸⁷ Stevenson, *Traveller*, 30, 50; Waterton, *Wanderings*, 34.
- ⁸⁸ Stevenson, *op. cit.*, 46.
- ⁸⁹ Waterton and Humboldt both have much to say about electric eels; see also Schmidtmeier, *Travels*, 81.
- ⁹⁰ Agassiz, *Journey*, 220; see also pp. 201, 222, 241.
- ⁹¹ Smyth and Lowe, *op. cit.*, 261; Herndon, *Exploration*, 216; Orton, *op. cit.*, 231.
- ⁹² Orton, *op. cit.*, 231.
- ⁹³ Stevenson, *Traveller*, 37.
- ⁹⁴ Herndon, *Exploration*, 398.
- ⁹⁵ Orton, *op. cit.*, 230.

⁹⁶ W. J. Bell, "The Relation of Herndon and Gibbon's Exploration of the Amazon to North American Slavery," *Hispanic American Historical Review*, 19 (1939), 494-503.

⁹⁷ Herndon, *Exploration*, 337.

⁹⁸ Orton, *op. cit.*, 246, 251; Brown and Lidstone, *op. cit.*, 118.

⁹⁹ Orton, *op. cit.*, 251.

¹⁰⁰ *Ibid.*, 252.

¹⁰¹ Brown and Lidstone, *op. cit.*, 254.

¹⁰² Wallace, *Travels*, 253; Maw, *op. cit.*, 257.

¹⁰³ Brown and Lidstone, *op. cit.*, 272.

¹⁰⁴ Bates, *op. cit.*, 209.

¹⁰⁵ *Ibid.*, 406-7.

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